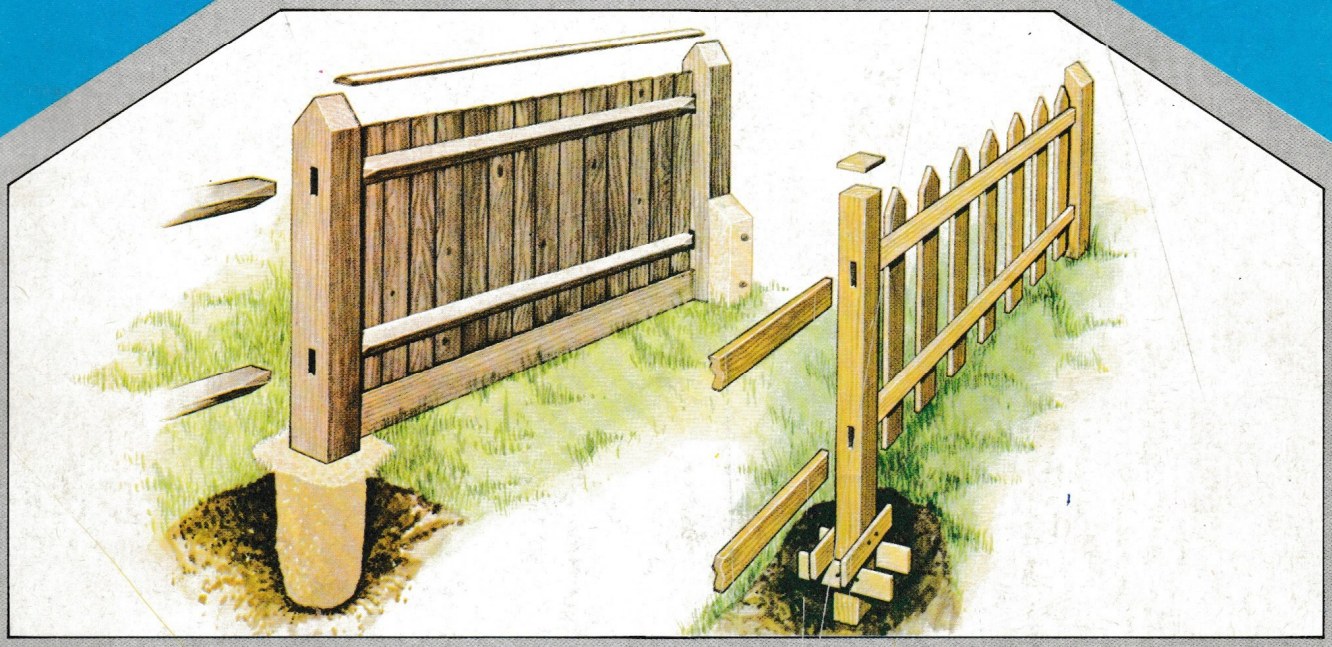
A Marshall Cavendish Publication in weekly parts

Part 14

THE KNACK

The complete manual of DIY skills, projects and home ideas



UK 55p Australia $1.50 New Zealand $1.50 South Africa R1.25 Malta 50c Singapore $3.00

THE KNACK

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The index

The last two parts of The Knack will form a complete fully cross-referenced index. For easy access to the information in your growing collection, interim indexes will be published to cover each 14-part volume. For quick reference, reminders on what has been covered so far in the volume will appear on the inside back cover.

Published by Marshall Cavendish Partworks Ltd.

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Printed in England by Varnicoat Ltd.

Copies by post

Our subscription department can supply your copies direct to you regularly and at 55p each. For example: the cost of 26 issues is £14.30 and for any other period simply multiply the number of issues required by 55p. These rates apply anywhere in the world. Orders with payment to Subscription Department, Marshall Cavendish Partworks Ltd., 58 Old Compton Street, London, W1V 5PA. Be sure to state from which issue you wish to start and leave the rest to us.

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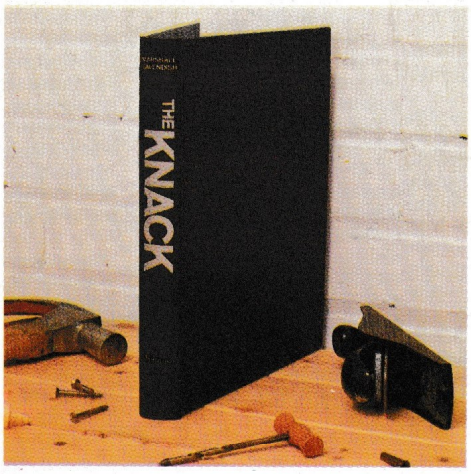

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Working with chipboard

Nigel Messett

Above: *The simplest way of finishing off the rough edges of chipboard is to fix iron-on edging strip. Rub the strip into place with an iron, trim its edges, then smooth them down with glasspaper*

Chipboard sizes and types ● Chipboard uses ● Sawing and drilling chipboard ● Edging and finishing ● Joining methods ● Chipboard and furniture design

The reasons why wood chipboard has become such a popular woodworking material are not hard to see. As well as being cheap and easily available, it has a finish which compares well with other manufactured boards.

And providing it is kept dry, chipboard has an exellent resistance to warping and shrinkage—a boon in hot climates and today's centrally-heated homes.

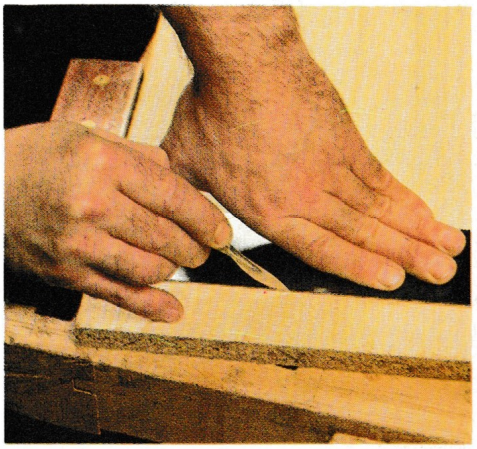
Wood chipboard is made by applying heat and pressure to wood chips which have previously been coated with a binder adhesive. The chips—usually softwood—make up about 90 per cent of the board. The rest of the material comprises synthetic resin and additives. This mixture can be varied to increase the board's resistance to pests, fungi, fire and wetting.

Chipboard sizes

In the UK, wood chipboard is sold in sheets 1200mm-5490mm long and 600mm-2440mm wide. Thicknesses vary from 4mm to 30mm.

The most common size of plain chipboard available is 1220mm × 2440mm in thicknesses of 12mm, 15mm, 16mm and 18mm.

Melamine and veneer-surfaced normally come in 1830mm and 2440mm lengths. In Australia, plain chipboard sheets are usually produced in sizes from 1200mm × 2400mm to 1800mm × 4800mm. Thicknesses vary from 4mm to 43mm the most common being 13mm, 16mm and 18mm. Coated boards come in a wide variety.

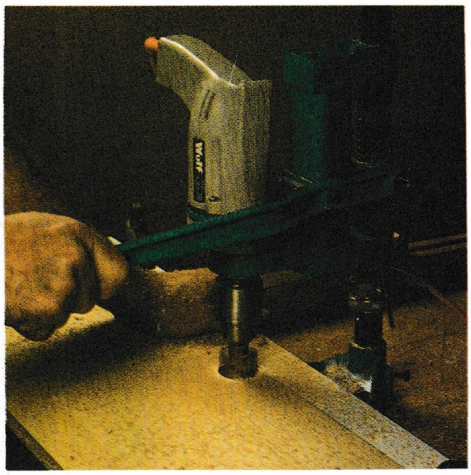


1 *To cut chipboard accurately begin by marking out the board with a try square and a sharp, curved-blade marking knife*

2 *For hand-sawing chipboard, use a crosscut saw. Cut slightly to the waste side of the line, holding the saw at the acutest possible angle*

3 *To finish the sawn edge down to the marked line, clamp the board in a vice and shave the waste using a sharp block plane*

4 *To stop veneered chipboard from chipping excessively as you saw, stick clear adhesive tape flush along the cutting line*

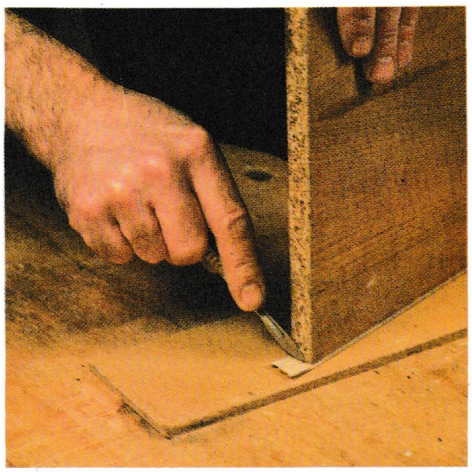


5 *When drilling holes for KD fittings a vertical drill stand makes sure that the bit is at 90° to the board and that the depth of the hole is even*

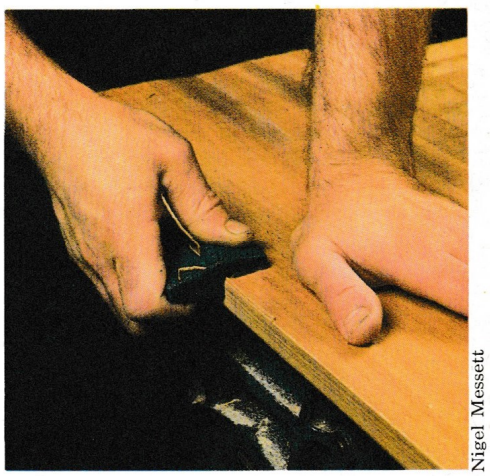
6 *To apply an iron-on edging strip, pre-heat the edge of the board by rubbing over it with a domestic iron on its hottest setting*

7 *When the edge of the board is hot, align a length of strip along the edge and tack one end in place with the iron*

8 *Cover the strip with a length of brown paper then firmly rub the iron along the edge until the strip sticks into place*

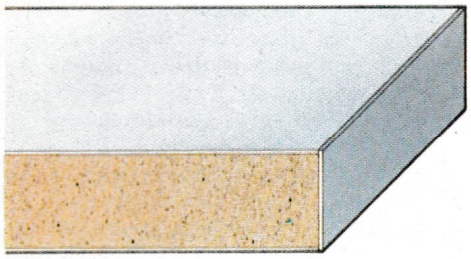


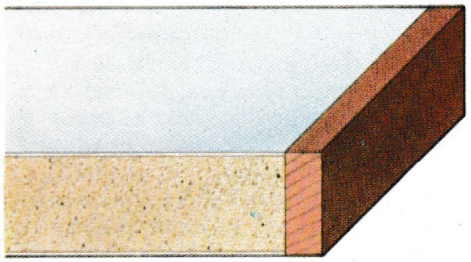
9 *Leave the adhesive to harden for about 20 minutes, then trim off any excess strip at either end with a sharp knife*

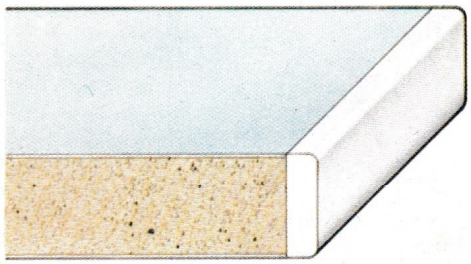


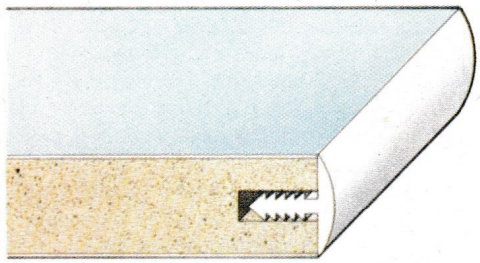
10 *Shave away the edges of the strip using a proprietary edge trimmer so that they are flush with the sides of the board*

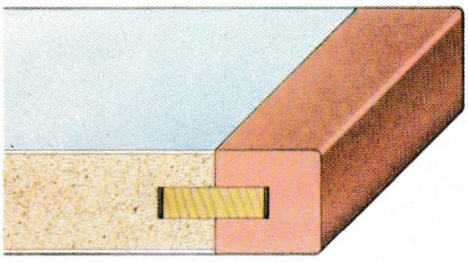
Nigel Messett

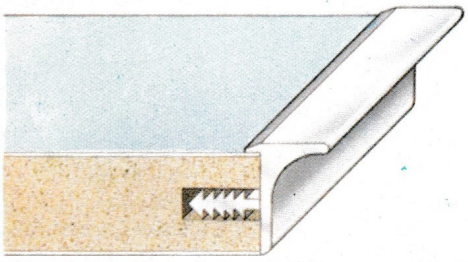

Thin plastic edging


Wood lipping


PVC edging


Extruded tongued plastic


Hardwood lipped with loose tongue


Aluminium handle and edging combined

Uses of chipboard

Most areas of DIY have some use for chipboard including roofing, flooring, panelling, ceiling lining, partitioning and concreting. But the specialist techniques of cutting and joining chipboard really come to the fore in furniture making, where a neat and accurate finish is essential.

Here, the wide variety of finishes of chipboard and the large number of special hinges and knock-down fittings available put all kinds of projects within the scope of the DIY enthusiast.

Types of chipboard

Chipboard can be classified by the manufacturing process, the number of layers framed in the board's thickness, the density of the chips, the type of surface and by a simple grading system.

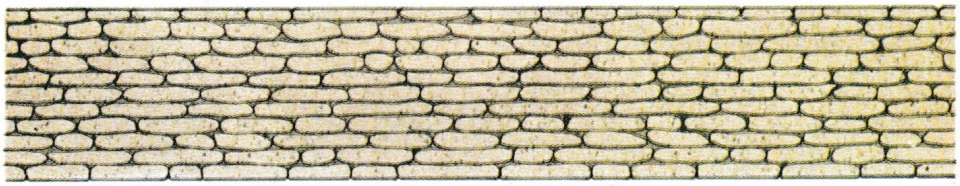
Platten-press and *extrusion* are the two manufacturing processes used. Most of the chipboard available to the DIY handyman is produced by the former method. This in turn is classified according to its composition.

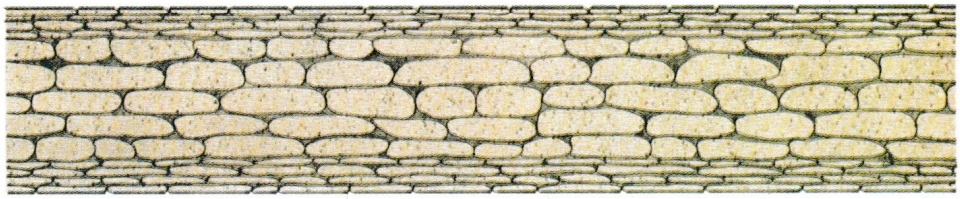
Single-layer board has a uniform, usually low, density throughout and all the chips are of one size. The surface finish is generally rough. *Three-layer* chipboard, which is more common, has a layer of large, medium-density chips sandwiched between layers of fine, high-density wood chips. This gives a much better surface with greater flexing strength.

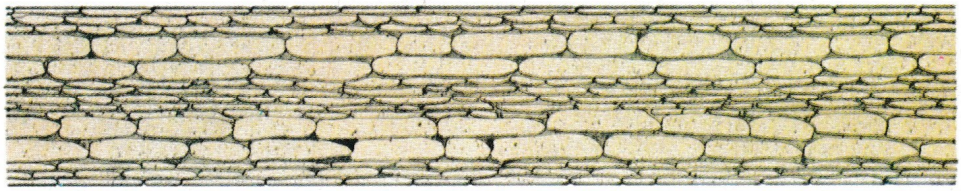
Multi-layer boards have similar properties to those of three-layer boards but in this case a high-density core gives even better flexing strength. *Graded density* chipboard is a kind of single-layer board with dense chips on the outer surfaces to give a smoother finish.

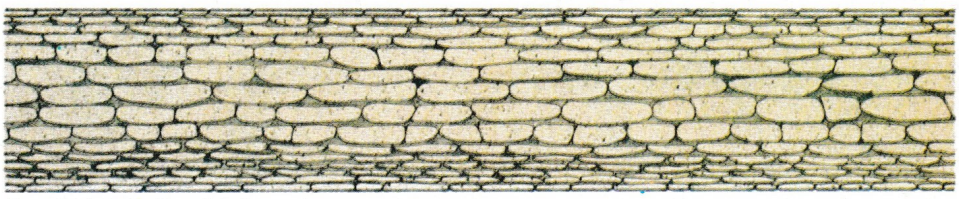
To make buying easier, most DIY chipboard is sold according to a simple grading system. *Standard* grade is a general-purpose board for joinery and construction in dry conditions. *Flooring* grade is a smoother, high-quality board with extra strength for use over floor joists and concrete slabs. *Moisture resistant* grade is the most expensive and is suitable for use in damp and adverse conditions.

Left: *Common types of edging used for finishing off the rough edges of chipboard.* **Below:** *The basic types of chipboard composition*


Single-layer chipboard


Three-layer chipboard


Multi-layer chipboard


Graded density chipboard

Bernard Fallon

Finishes

One of the greatest advantages of chipboard is the wide range of finishes available. Apart from the standard plain finish, the most common are fine chip, melamine-faced—usually white or imitation wood grain—and wood veneer. The veneered finishes may be whitewood pine, teak, oak, sapele or mahogany. In Australia veneers may be walnut, Queensland maple, ash or blackbean.

Patterned and coloured plastic-laminated board comes in some unusual styles but can be expensive. Vinyl foil-faced boards are decorative and easy to maintain.

Ideal for the handyman short of time are ready-to-paint boards, prepared and pre-filled, which the manufacturers claim can be finished with only one coat of paint. Pre-painted boards—on one or both surfaces—are also available.

Among the heavy-duty specialist boards are pre-felted for roofing, insect resistant and fire resistant.

Sawing chipboard

The best saw for hand-sawing chipboard is a crosscut (see pages 44-49) with about twenty teeth per 30mm. For accurate cuts, mark the board out with a curved-blade marking knife, then saw slightly to the waste side of the line. Hold the saw at the acutest possible angle to the board (fig. 2).

Finish the cut edge down to the line with a sharp, finely set plane—a small block plane with the cutter set angle at 12° is ideal (fig. 3).

If you find that the board chips excessively as you saw, try sticking a length of clear adhesive tape flush along the cutting line (fig. 4).

Sheets of chipboard are also admirably suited to cutting with a hand power saw—such as a jig saw—or power drill attachment. The same marking out and cutting rules apply, though cutting lines in veneered board should be deeply scored to minimize chipping.

Electric routers can be useful for trimming chipboard and—with care—for cutting grooves. Optimum speed for the cutter is 18,000-24,000 rev/min and the cutter itself should be tungsten carbide-tipped.

Drilling chipboard

Here, all the usual woodworking rules apply (see pages 72-77). For screw holes, use bits with a point angle of between 80° and 90°.

Special bits and cutters are available for making the larger, 'dead' holes used in conjunction with certain types of knock-down fitting and hinges (see pages 266-271). In this case, a pillar drill or drill stand—for a portable drill—is a worthwhile investment. You can then make sure that the bit is at exactly 90° to the face of the board and that the depth of the resulting dead hole is even (fig. 5).

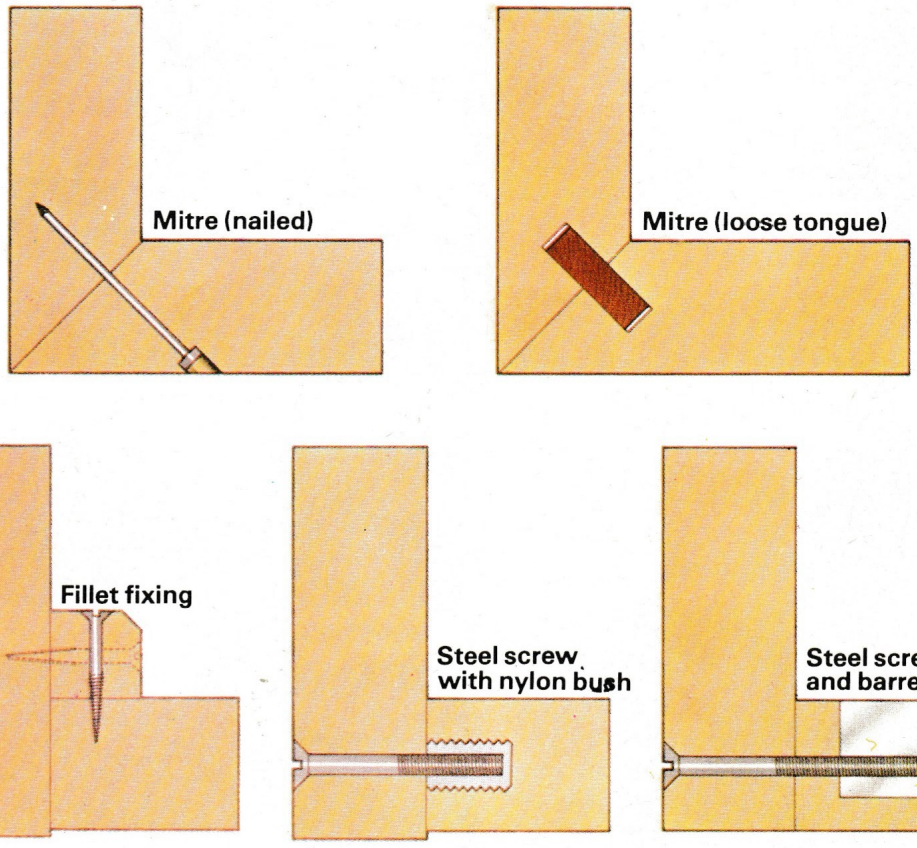
Joining

Nailing, used in conjunction with PVA woodworking adhesive, is by far the simplest method of joining chipboard and often makes a perfectly satisfactory joint. Use lost head nails or large gauge panel pins, both of which can be punched below the surface of the board while the adhesive is still wet. Fill the holes later when the board receives its final finish.

When screwing chipboard—usually essential on melamine-faced or veneered boards—use double-threaded shankless screws. Such screws are specially designed for chipboard and have greater holding power in this material than ordinary wood screws. They also minimize the risk of splitting the wood.

Pilot holes should always be drilled, as for ordinary timber (see pages

A. *Common methods of jointing chipboard. Boards can be joined together by nailing, screwing or by inserting dowels or loose tongues. In addition there are many knock-down fittings available, specifically designed for use with chipboard. When nailing chipboard, use lost head nails, or panel pins, with PVA woodworking adhesive. If using screws, drill pilot holes, as for ordinary timber, then insert adhesive-coated screws*



72-77). But to make a stronger seating for the threads—especially in end-grain—coat them first with a little PVA adhesive.

For edge jointing, with or without nails or screws, use either PVA or urea formaldehyde adhesive. Make sure that the adhesive soaks well into the grain and coats each adjoining chip or particle.

Fig. A shows the joints most commonly used in chipboard construction and also some of the knock-down joint fittings now available. Where possible, boards which butt-join at right-angles to one another should be overlapped by 3-6mm. The excess wood can then be planed off after the butt joint has been made.

Edging

In recent years, several means of finishing off the rough edges of chipboard have been devised. The simplest of these is the iron-on edging strip (fig. 7). Available in widths to match most board thicknesses, it is sold either in 2-3m packs or in larger rolls.

To apply the strip, the edge of the board should first be heated by rubbing over it with a domestic iron on its hottest setting. When the edge is hot, you align a length of strip, cover it with brown paper then run over the paper with the iron (fig. 8).

After 20 minutes, by which time the strip adhesive should have hardened, cut off the ends of the strip with a sharp knife and trim the edges with a proprietary trimmer (fig. 10).

Another, more traditional, edging method is to use softwood or hardwood lippings. The lipping should be slightly wider than the thickness of the board it is going on: the excess can be planed away after it is fixed. Secure lippings with PVA adhesive and panel pins.

In certain circumstances, you may be able to employ one of the large range of plastic and aluminium extruded strips available. Many of these simply clip onto the board.

Alternatively, the edges can be filled—using a proprietary wood filler —and painted. Make sure that the filler goes well into the chips and rub down with fine glass, garnet or aluminium oxide paper before painting.

Furniture design

In furniture building, faced boards are by far the easiest to work with. By designing sections to accommodate standard-sized boards (see panel) you can simplify construction and keep cutting and edging to a minimum.

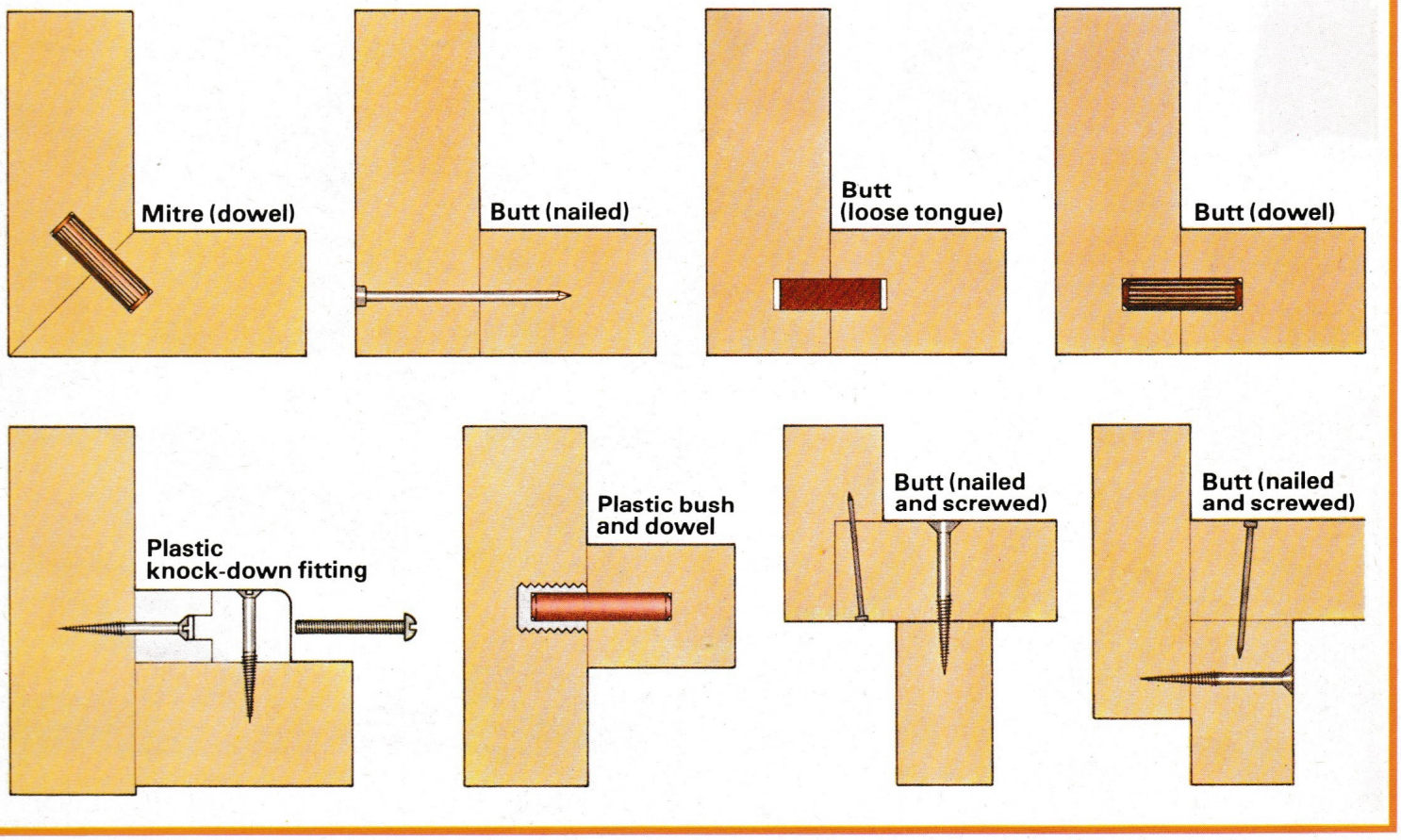
If you decide to use plain chipboard, 15-18mm thickness should be suitable for most furniture carcasses without timber framing. The board should be of a high density with a fine chip, preferably pre-sealed, finish. Flooring grade board satisfies the first two requirements but is available only in 18 to 22mm thicknesses.

Designing furniture in chipboard can also be made easier by incorporating some of the pre-formed units on the market, though this may work out more expensive than building them yourself. Doors, drawers, shelves and shelf supports are all available ready to be assembled. Special hinges for chipboard are described in detail on pages 266-271.

Finishing

The best finish for plain, unsealed chipboard is paint. You can use almost any type and though it may be brushed on, using a lambswool roller or a spray gun gives better results.

Veneer surfaces can be finished with two coats of brushing cellulose sanding sealer, rubbing down between coats with fine glasspaper. Afterwards, the veneer can be either waxed or given two coats of clear melamine wood lacquer or polyurethane lacquer.



Bernard Fallon

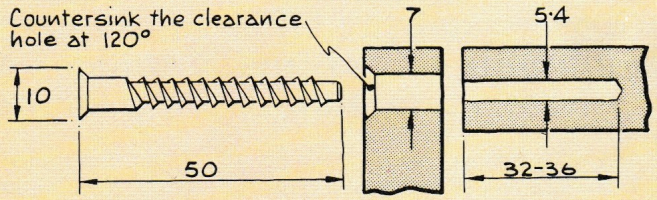
Build a bookshelf

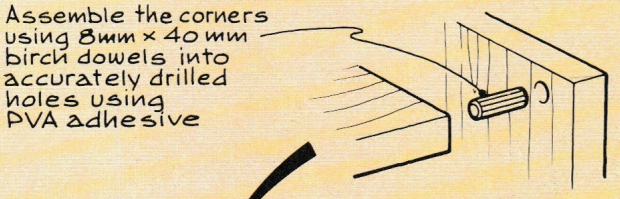
Simon Butcher

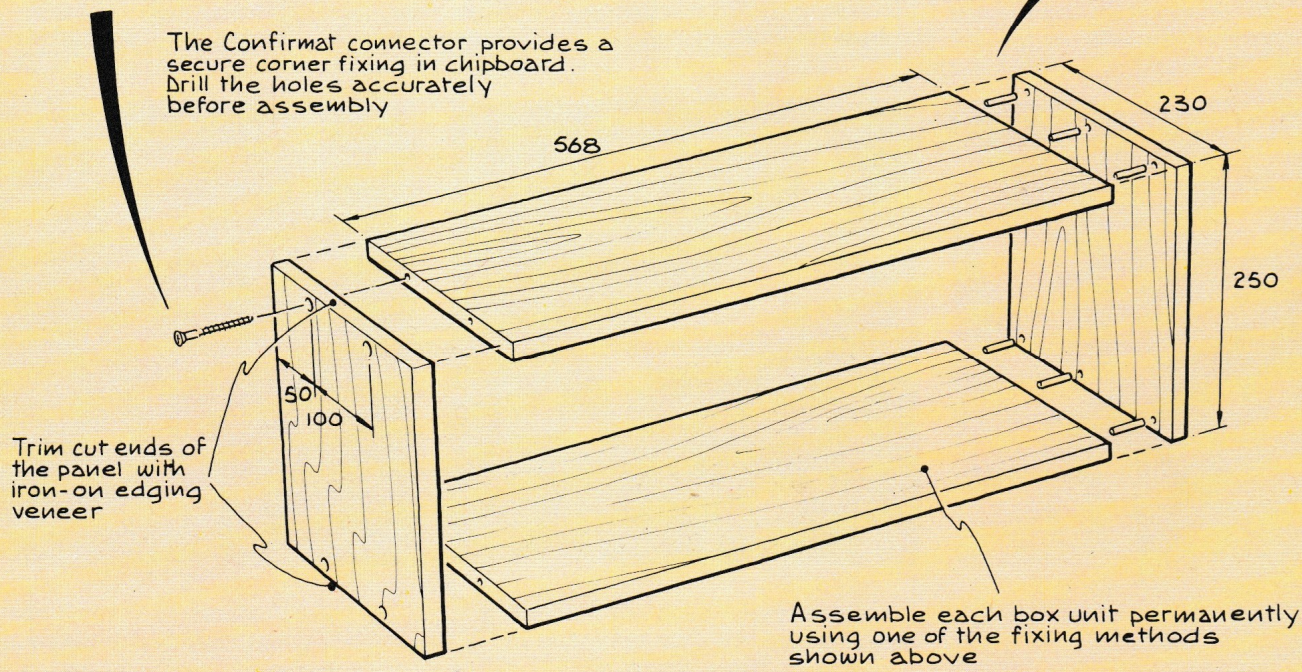
These shelves give you a huge amount of storage space for relatively little cost, and are easy to make using standard methods of jointing chipboard. The chipboard itself has plenty of strength for frame construction, and as knock-down fittings are used to join the uprights to the box units, the shelves are easy to dismantle for removals.

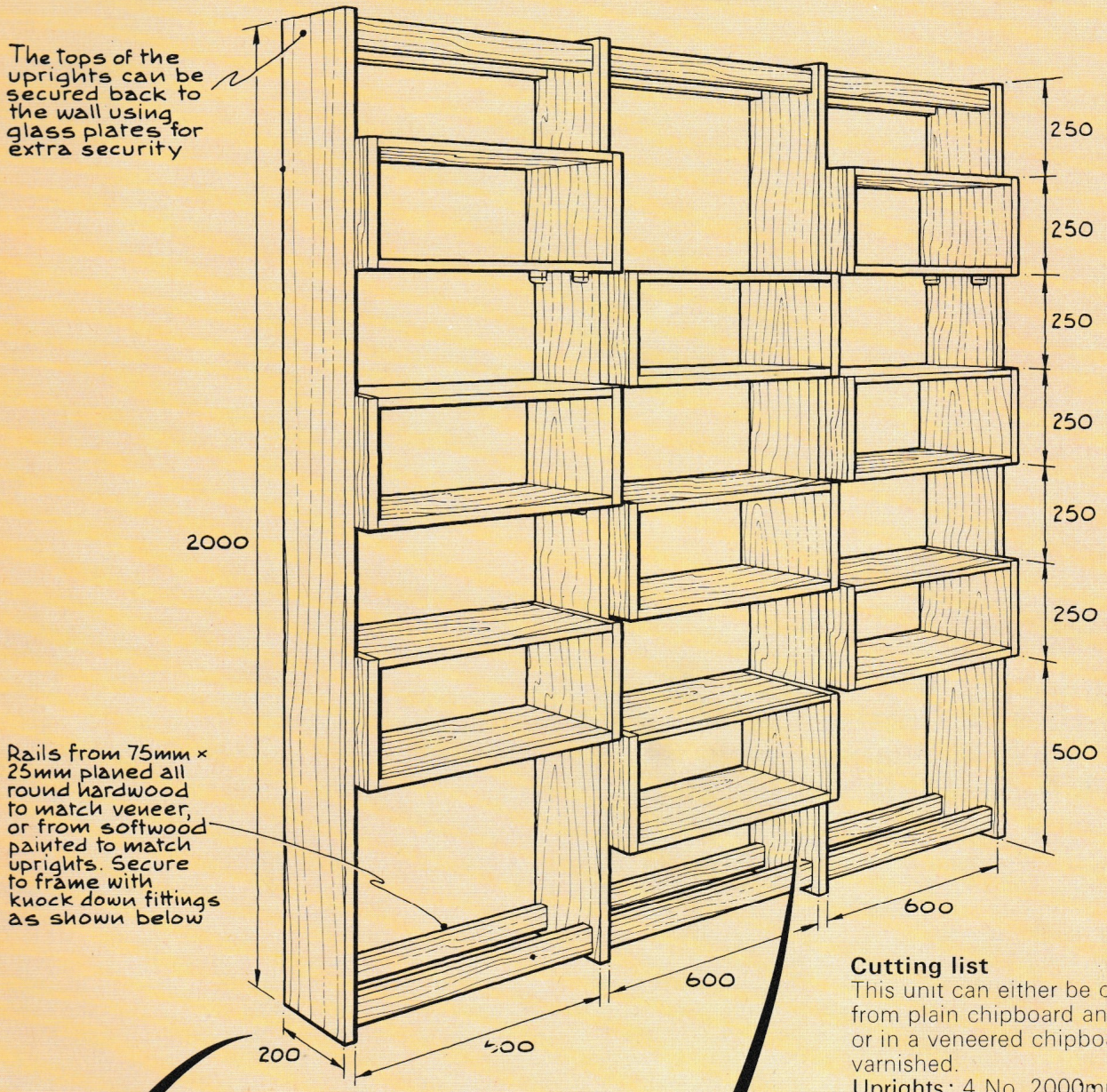
You can choose from a veneered chipboard which will need only lacquering to give a good finish, or use plain chipboard and paint it to match your colour scheme. This is particularly effective if, as here, you choose two toning colours for the box units and the uprights.

Start with the nine box units, which are all the same size. Whichever joint you use, accurate drilling is important—a simple jig will help. Then join the boxes and struts using the screw-on knock-down fittings.






The Confirmat connector provides a secure corner fixing in chipboard. Drill the holes accurately before assembly
568
230
250
50
100
Trim cut ends of the panel with iron-on edging veneer
Assemble each box unit permanently using one of the fixing methods shown above


The tops of the uprights can be secured back to the wall using glass plates for extra security
2000
250
250
250
250
250
250
500
600
600
500
200
Rails from 75mm × 25mm planed all round hardwood to match veneer, or from softwood painted to match uprights. Secure to frame with knock down fittings as shown below
Fix each box unit in place using 4 knock down fittings (2 at each end) This allows you to dismantle the shelving for ease of moving
Secure the knock down fittings with 16mm No. 6 (3.5 mm) chipboard screws
This machine screw locks the two halves of the fitting together
30
25
25
Set the front knock down fitting 50mm in from the front edge so it is concealed. Knock down fittings for rails are concealed behind rails

Cutting list

This unit can either be constructed from plain chipboard and painted, or in a veneered chipboard and varnished.

Uprights: 4 No. 2000mm × 200mm × 16mm chipboard

Shelf units: 18 No. 568mm × 230mm × 16mm chipboard, 18 No. 250mm × 230mm × 16mm chipboard

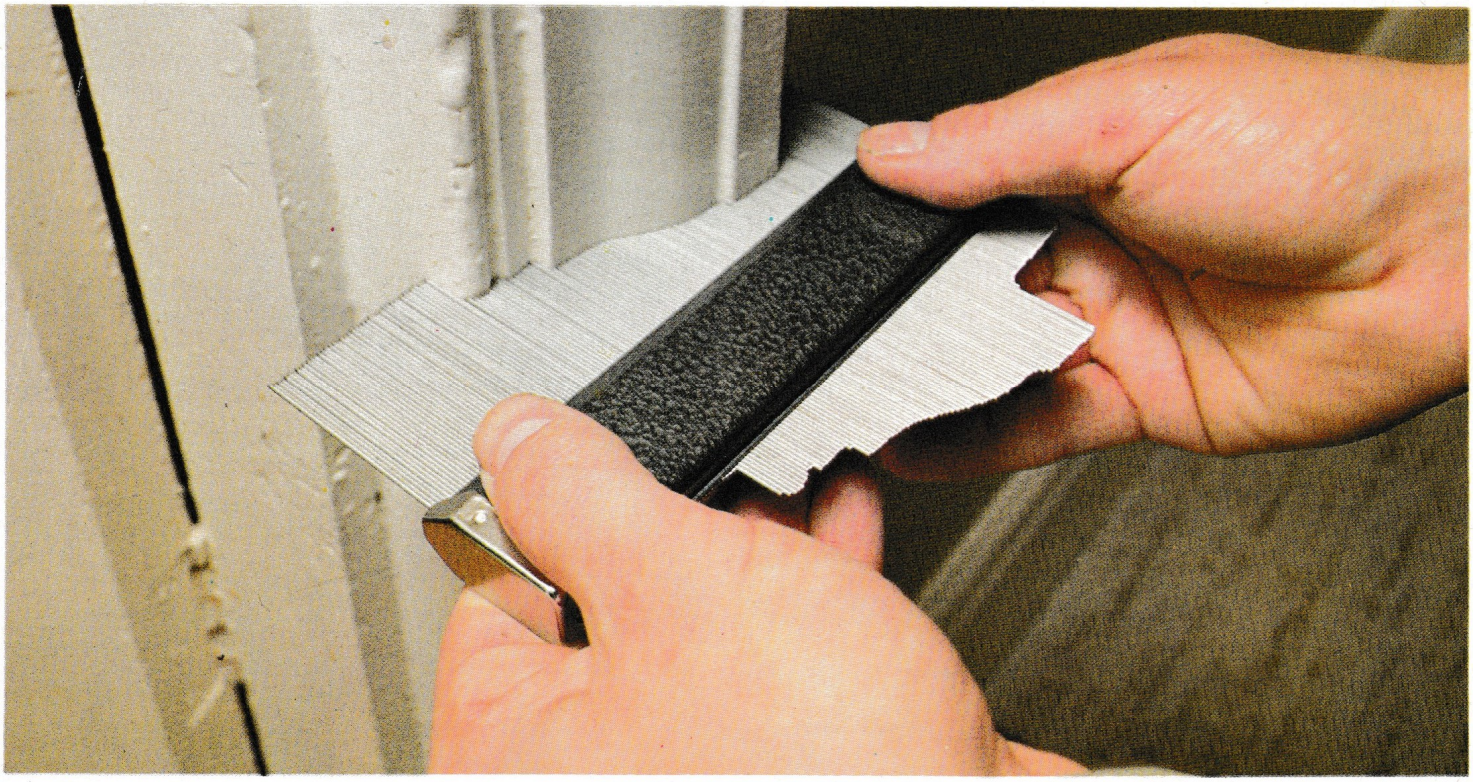
Shelf Unit fixings: 72 No. Confirmat connectors (alternatively use 40mm × 8mm dowels)

Knock down fittings: 96 No. Block-Joint fittings

Strengthening rails: 24 No. 600mm × 75mm × 25mm planed all round hardwood to match veneer (or softwood if unit is painted). Iron on edging veneer

Advertising Arts

Laying floor tiles and sheet vinyl



John Ward

● Dry-run laying ● Tile preparation ● Laying individual tiles ● Cutting tiles to fit ● Making a scribing tool ● Sealing cork tiles ● Fitting sheet vinyl ● Avoiding shrinkage problems

Above: *You do not often come across architraves as complicated as this. This shape was scribed using a Mimic—a device like a comb with sliding teeth*

Laying vinyl or cork floor tiles is one of the best ways of providing a room with a good-looking and tough floor covering. And providing the floor preparation and design stages have not been skimped, the job is quick and uncomplicated. Laying hardboard on a wood, cement or concrete floor to provide a smooth and level base for all forms of tiling is covered fully on pages 352-356.

Finding the centre of the room is the first stage of planning a design and for calculating the number of tiles of any one type that may be required. The tile direction, and hence design, is also influenced by positions of the main doorways.

The centre of the room is also used as the starting point for tile laying. This ensures that the tiles are laid evenly and squarely in what is the most conspicuous part of the room and means that you end up by trimming and cutting tiles to fit. Even in small rooms or hallways, always start tiling in the middle.

Before tiling, do a 'dry run' to check for problems in laying and also that your design works. Tile fit can be checked across the length and the breadth of a room, in alcoves, and anywhere else where the basic shape of the room alters.

This is a particularly important job if a large, unusually shaped room is being tiled. Figures A to D show how to deal with a seven-sided room which, if hardly typical, highlights most of the problems you may encounter with a room of more normal shape.

Arrange two lengths of string to cross the centre of the room and to act as guides for tile laying. Fixed carefully to the skirting and stretched taut a little above the floor, these can then be chalked and snapped against the floor to produce the final laying marks (fig. C).

Before you go further, consider if moving the strings a little away from the middle actually reduces the amount of fiddly cutting needed at the edges: in the featured room (fig. A), there is too much of this so the line was moved. You could, of course, take up this border width by using feature strips within the overall design (see back cover)—or a strip of matching material in the case of vinyl sheet—rather than numerous individual tile off-cuts. But shifting the whole lot one way or the other so that at least a third or half a tile is left at the borders makes accurate cutting and shaping much easier.

In the featured room (fig. B), moving the tiles to the right a little avoids fiddly cutting at the 'window wall' border and leaves half-tiles on the 'inner wall' border. Only door 3 and the opposite corner present anything of a problem.

You may prefer, however, to shift the whole tile pattern to the left (fig. C). This time the half-tiles occur at the 'window wall' border, and less fiddly cutting is involved both at door 3 and the corner opposite to this.

Too much fiddly cutting means wasted tiles, particularly where a directional pattern has to be matched. Spending time on a dry laying run keeps this wastage to a minimum,

reduces the work-load and makes for a better-looking job.

Having finally established the laying guides, chalk these on the support flooring. Remove the strings but leave the skirting pins in place so that chalked marks can be remade if necessary.

Tile preparation

With vinyl tiles, by and large you get what you pay for. The more expensive forms contain a greater proportion of vinyl, are better wearing as a result, and are usually less of a problem to lay. All benefit from being left a day or so in a warm room or airing cupboard, after which time they become more pliable and easier to handle. Sheet vinyl, in particular, ought to undergo this acclimatization procedure. There is no need to do the same for cork tiling.

Laying individual tiles

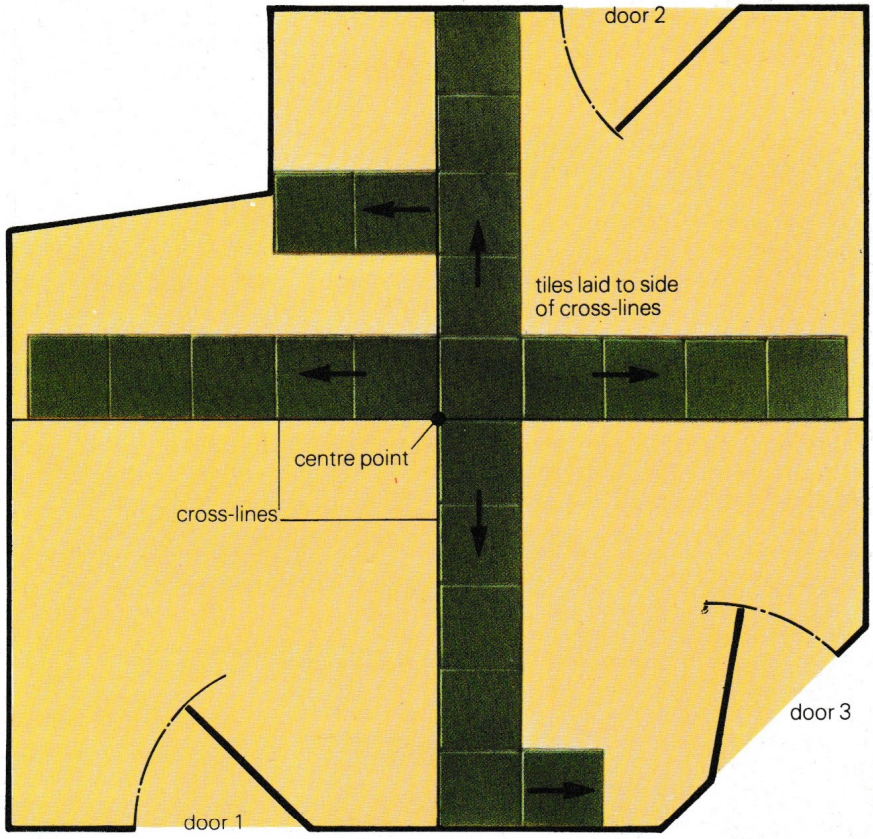
Individual tiles are laid from the centre of the room and outwards. If tile adhesive is required, spread a little of this along the chalked cross lines (fig. D). Use the adhesive recommended by the tile manufacturer, and follow the specified instructions for applying this. With cork tiles, for example, you may have to apply adhesive to the underside of the tile as well as to the floor, perhaps leaving an interval for drying before bringing both together.

The important rule for tiling is to cover only a small part of the floor at a time. Lay the centre four tiles against each other to coincide with the crossed chalked marks at the centre of the room.

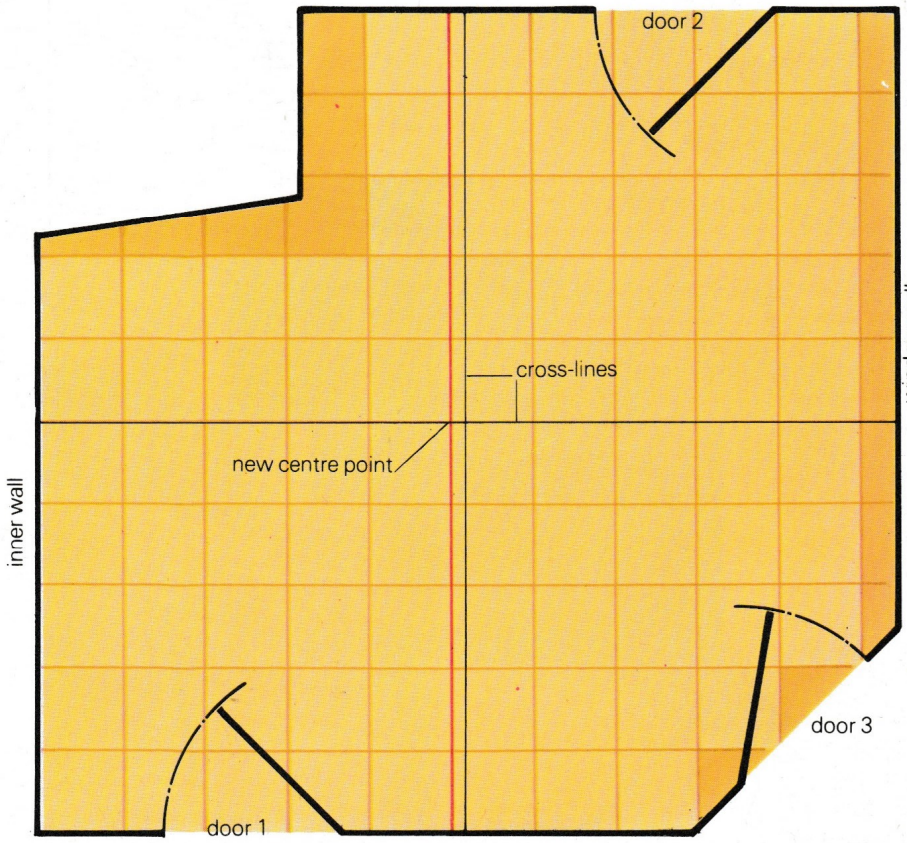
Take care not to push the tiles together if adhesive is used: this may force the excess up between the tiles. Wipe off surplus adhesive with a damp cloth before it has a chance to dry. Smears can be removed with soap and a brush—never use solvents.

Work outwards from the centre four tiles once these have set, applying only as much adhesive as is necessary for each small area before you tile. Deal with one quadrant of the floor before moving on to the next.

The physical finish of some tiles is directional and if this is not immediately obvious, check to see if there is a laying direction arrow printed on the underside. If light catches the surface of an improperly-laid directional tile it can considerably affect the overall appearance. To avoid slight shade differences from box to box, shuffle and mix the tiles.



A. *Starting from the centre 'dry lay' outwards to check how the tiles fit. You can then see what cutting is required at window and interior walls*



B. *By moving the string guide lines to the right, cutting (dark areas) is avoided at the window wall, with better widths on the inner wall*

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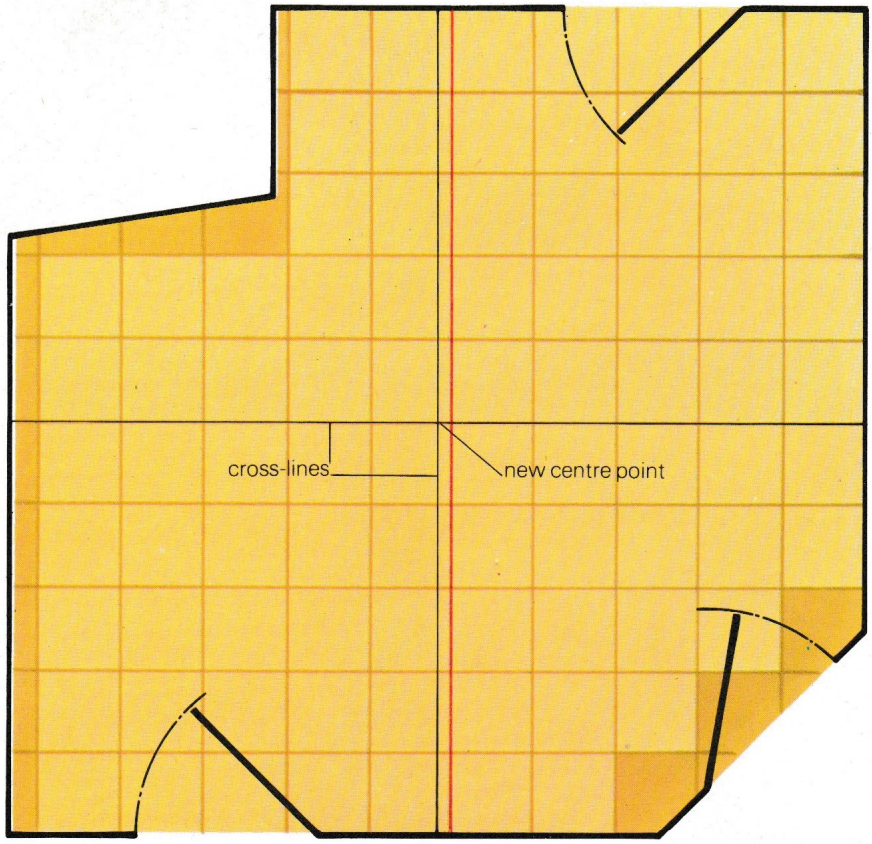
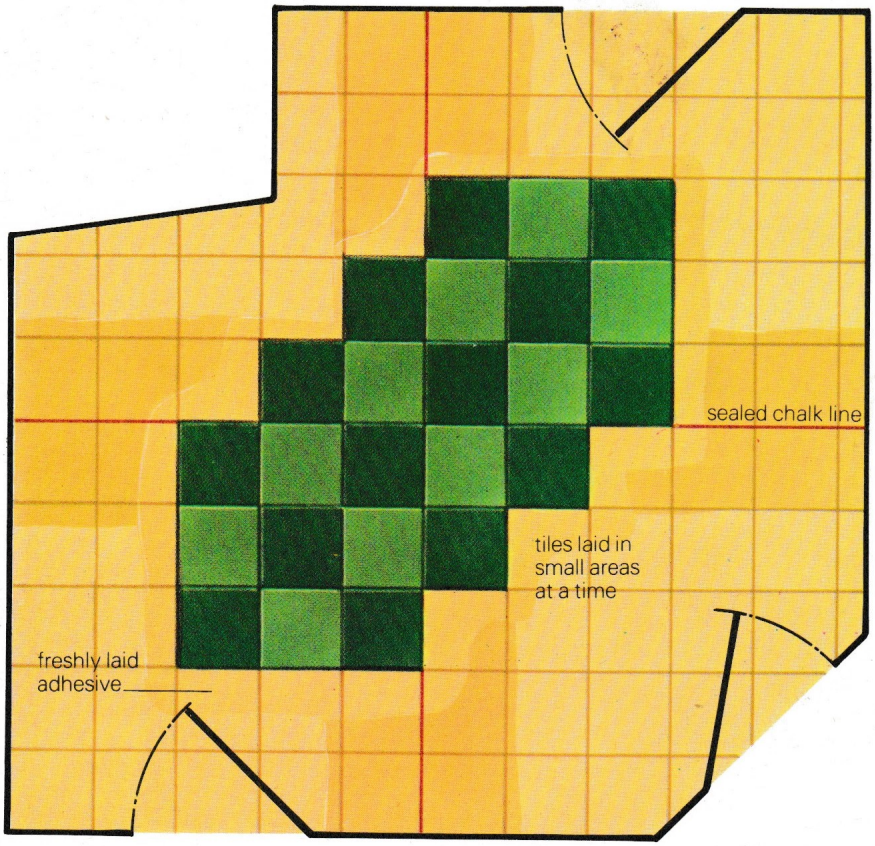


C. *The best arrangement for this room means laying against a string cross where the 'vertical' is slightly to the left of the true centre*



D. *Chalk a cross on a smearing of tacky adhesive. Fix and let dry the centre four tiles. Work outwards from these, doing a few squares at a time*

Cutting tiles to fit

Eventually you will come to the border where, unless the fit is arranged to be perfect, the tiles need cutting to shape and width. This is an easy enough job if you are familiar with scribing techniques, but if these are new to you it may be worthwhile sacrificing a few spare tiles to practise on.

Place a tile squarely on top of the last one before the border. Take another and place this partly on top but firmly butted against the wall. The inner edge is then used to mark a cutting line on the middle tile—you can score this using a cutting knife and then complete the cut elsewhere using a cutting board, steel rule and safety blade. Make sure the middle tile is of the correct type and in the right direction before cutting.

1 *You can lay tiles on a level and smooth concrete floor if an underlay is not required. Use a bolster to remove surface flaws*

4 *Use a steel rule, heavy-duty handyman's knife and—just as important—a cutting board when you trim sheet or individual tiling*

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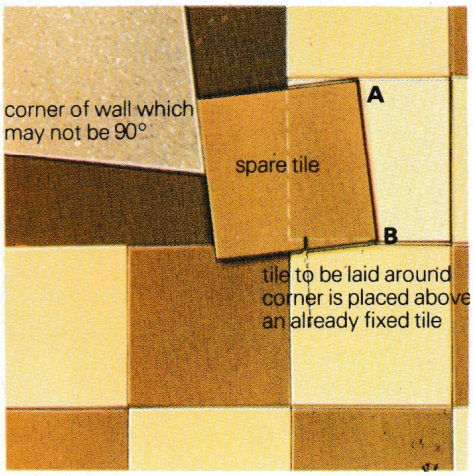
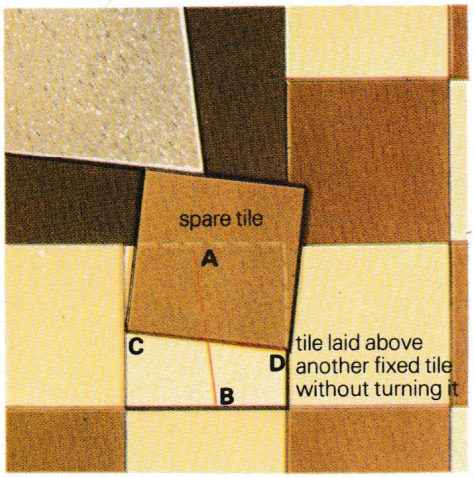


E. *The procedure for scribing a tile. Use a matching tile as the transfer ruler, and pencil the cutting mark*



F. *Without twisting the tile, scribe the second mark and then remove the waste corner*

G. *The finished tile fixed into place. The procedure for internal corners and edges is identical*

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2 *In a small room there is no need to mark the floor for tile laying but do go through a dry lay routine to check the tiles for fit*

3 *Use the recommended adhesive and fix a small area of tile at a time. Remove adhesive squeezed up between tiles before this sets*

5 *Take special care in cutting tiles to fit architraves and other awkward obstacles. A card template or special tool is useful*

6 *By mixing your packets of tiling, slight differences in colouring become less noticeable when tiles are laid on the floor*

When you are laying into and around a corner, titles need to be cut both widthways and lengthways. Use the same procedure as for a straight border but repeat this for the two sides of the corner without turning the middle tile (figs E to G).

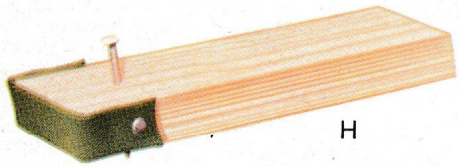
Even on what looks to be a straight and even border, mark up tiles for cutting individually so that you take care of any irregularities. For odd shapes—such as architraves, radiator pipes, and beam uprights—carefully nibble away the tile freehand until you can slide it into place (fig. 5). A template cut from card saves wasting too many tiles.

You can also use a shape-tracing tool or template former with metal teeth similar to a comb. These teeth take the form of any firm object against which they are pushed and once tightened in place, the outer ends can be used as a cutting guide. The tool is particularly useful for dealing with the often intricate shapes of door architraves and other fixed obstacles (see page 380).

Sealing the tiles

Vinyl tiles do not require any surface treatment after laying. Some cork tiles are pre-finished with a vinyl coating and also need no further work. Untreated tiles can be treated with oleo-resinous and polyurethane varnishes which are available in eggshell, matt or gloss finishes.

Of these, polyurethane has the advantage of being extremely hard wearing as well as being resistant to both heat and most chemicals. At least two coats are required for cork tiles as a single coat will tend to soak into the cork, leaving a patchy appearance.



H. *A scribing tool made from a square-ended piece of battening. Cover the end with cloth or felt. Start the sequence for cutting sheet vinyl by measuring back from the wall, marking a point on the edge of the sheet* (**I**). *Pull the sheet back enough to back-mark the edge by the same distance and place the scribing nail on this* (**J**). *Scribe the cutting line* (**K**) *and remove the waste* (**L**). *Where two sheets overlap* (**M**) *cut between the edges (red dotted line)*

It is not a good idea to wax cork tiles as they then require frequent re-waxing—at least twice each year.

If cork-tiling a bathroom, it is advisable to lay pre-sanded tiles in preference to coated ones. The sealer, when applied, will then cover the cracks at the joins as well.

Avoid walking on unsealed tiles as these damage easily and marks can be very difficult to remove and disguise. If a high-gloss varnish is used, make sure dust is not allowed to spoil the appearance by thoroughly sweeping the floor beforehand.

Fitting sheet vinyl

Sheet vinyl is the modern answer to the once popular linoleum flooring and is warmer, if not quite so hard wearing. It provides a simple solution to those who require a good-looking floor covering—possibly highly patterned—but cannot be bothered with the planning that laying individual tiles involves.

Sheet vinyl comes in rolls about 2m wide, so have a clear idea of the way it is to unroll and be laid before choosing a particular pattern. As with individual vinyl tiles, allow the roll to acclimatize before laying—about two days loose rolled is enough.

Vinyl sheet flooring can sometimes shrink, so the makers usually advise cutting oversize when the material is first laid: follow these cutting instructions closely. After about two or three weeks of use, final trimming can take place at join overlaps and edges.

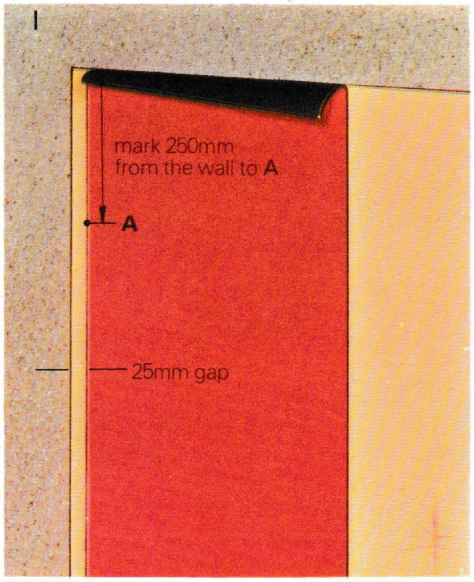
The possibility of shrinkage must always be considered when planning and laying down cuts and joins. Where possible you should keep these well clear of doorways, so if you are laying sheet in two adjacent rooms, arrange to have the sheet straddling the doorway threshold,

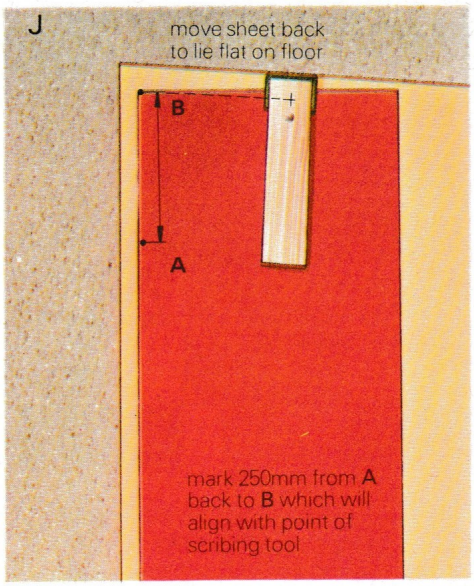
You will need a scribing tool for marking cutting lines at the sheet edges and ends. Make this by driving a nail partly through a wooden batten, 50mm from the end, so that the point protrudes about 3mm (fig. H).

Allowing a little extra for shrinkage and trimming, cut a length of sheet from your supply roll. Lay the sheet to allow an overlap of up to 150mm at sides and ends. Follow the scribing techniques outlined (figs. I to M) for final trimming. Use the same procedure for trimming sheet edges as you lay.

The pattern direction should be laid square to the room or doorway, however, if this wall is in any way angled.

Lay the end of your scribing tool at

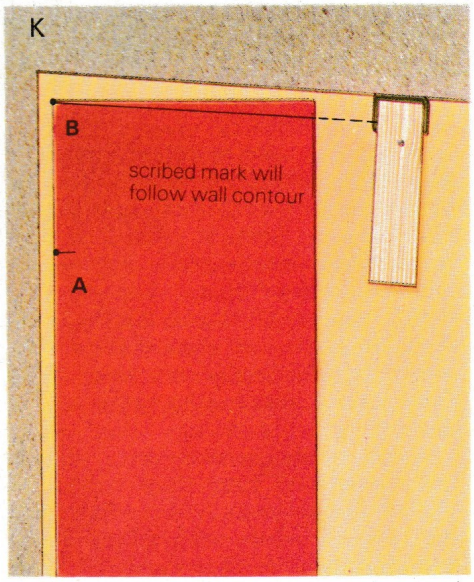


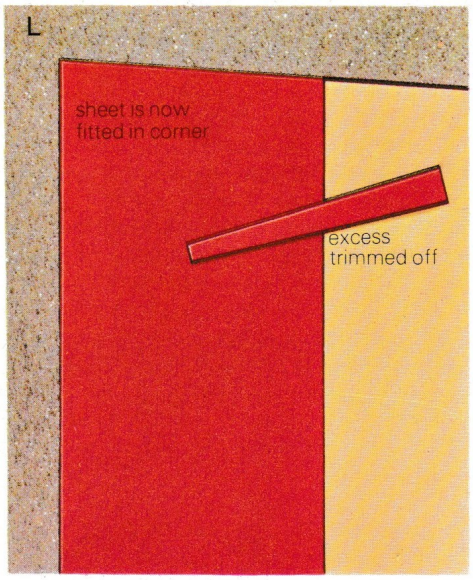


7 *Lay down hardboard sheeting on uneven floors before laying sheet vinyl tiling (see pages 352 to 356 for the procedure)*

8 *Cut sheeting to fit into every nook and cranny as the whole sheet is laid down. Use a cutting board and handyman's knife for safety*

9 *Slit the sheet edges so that a good fit, but a coarse trim, is obtained at the base of all obstacles and fittings—trim no further yet*





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right-angles against the skirting and mark the sheet along the length of the wall (fig. K). Take your time over the job, and try not to scrape the skirting board paintwork in the process.

The mark left on the sheet should mirror the shape of the wall and skirting. Individual obstructions are best dealt with as they are encountered. Slit the sheeting (fig. 9) but do not nibble away any more of the sheet than is necessary for fitting—trimming is best left to much later (fig. 10).

Cut the sheet edge to shape using a handyman's knife, steel rule and cutting board, then push it against the wall. The surplus at the ends can be turned up against the adjoining walls.

The sequence is repeated for the other sheet and rough cuts made again where fittings and protrusions occur, such as at a corner, chimney breast or radiator.

The alignment of the second sheet should of course match that of the first. Also check that trimming to fit the wall still leaves an overlap of at least 30mm with the first (fig. M). This may mean a little bit of calculating before the second sheet is laid down and coarsely trimmed.

Trimming sheet vinyl

After the two-week ageing period, final trimming can take place. Use a metal straightedge to force the sheet firmly against skirting boards and fittings before making the trimming cuts (fig. 10).

To trim the surplus at the roll ends, you can again use the straightedge to force the sheet flat as you cut. But as you can only do sections at a time, the appearance may suffer as a result.

A better method—especially if the wall is angled or uneven—is to duplicate the scribing technique used for the edges. To do this, make a pencil mark on the edge of the vinyl sheet 250mm from the wall (fig. I) and draw the sheet back from the wall so that it lays flat.

Now measure back 250mm towards the wall and make another mark (fig. J). By carefully sliding the sheet, arrange it so that the point of your scribing tool coincides with the second mark when the batten end is held against the skirting board (fig. J). Take care not to twist the sheet out of alignment in the process. Finally, scribe along the sheet as described above, cut off the waste and push the sheet tight against the skirting.

This method of scribing should also be used where a narrow strip is being fitted, such as in a hall or small kitchen.

Where two sheets meet at the middle, the overlap can be trimmed quickly and easily by running a handyman's knife along the double thickness. If possible coincide the cut with a pattern line in order to conceal it. Raise both edges and lay double-sided tape beneath if this is thought necessary (fig. M).

After the final trimming, vinyl sheet that needs to be glued in place can be raised and the adhesive applied. Use the products and techniques suggested by the manufacturers if you have to do this (fig. 11).

With modern, 'lay flat' vinyl sheet, gluing is not normally necessary. Specially designed double-sided tape can be used in areas where a raised edge may cause problems, such as at doorways and joins.

10 *After settling and shrinkage the vinyl sheet can be properly trimmed. Use a float or other metal straightedge as a cutting guide*

11 *Use suitable adhesive to fix edge joins and elsewhere that may cause problems if curling occurs—particularly at doorways*

Co-ordinate for style

Pulling together all the various elements in a decorative scheme is not difficult to accomplish. And using continuity of pattern and colour to co-ordinate your entire home can achieve some really effective results

Designers' Guild

Above: *Very effective co-ordinating schemes can be achieved by building a multitude of different patterns around a simple colour scheme*

We all want our homes to be attractive, pleasant places to be in and at the same time reflective of our personality. And yet it is obviously clear that while some homes are instantly welcoming and full of atmosphere, others seem cold and friendless.

If you really think about it and analyse the rooms that you feel happiest in, you will probably find that they all have one thing in common—continuity and a sense of harmony. This is not difficult or expensive to achieve and can be accomplished in many different ways.

Any professional decorator will get to know his client's needs before he even considers an interior design for their home. And if you want to create harmony and co-ordination in your home, this is a good place to start.

Consider carefully the way you live. Whether you are on your own, newly married, with children or pets should to a large extent dictate your choice of decor. Be realistic with yourself—there is no point in hankering after white carpets if you have no chance of keeping them clean. Or in choosing a beautiful silk fabric wallpaper if you have young children around.

You might also take into consideration the extent to which you are 'house proud', or the amount of time you have to keep it clean, as some furnishings and materials are easier to maintain than others. For example, fitted carpets, PVC and laminate surfaces, slip-off chair covers are all well worth considering if you have a full-time job as well as the home to take care of.

Most people grow up with very definite ideas on how they would like their home to look. And it often comes as a shock when their plans do not turn out quite as they expected. Many people tend to buy conventional furnishings they live to regret or hardly use simply because they thought it would look right.

Putting your ideas down on paper first can save considerable heartache after the event. Make a floor plan of all the rooms in your home then cut out paper shapes for all the furniture you wish to use. Move them around in each room until you feel entirely happy with the setting.

It is a good idea to make a list of all your priorities, including hobbies and recreations, and bare them in mind when planning your furniture. If you prefer evenings around the fire watching television or playing cards, for instance, it might be a good idea to have a large coffee table which you can use for the occasional informal evening meal.

Introducing harmony

Whether you live in a rented flat, a town house or country cottage, the same rules for introducing harmony apply. Always bear them in mind whatever your style of decoration.

Every room needs a centre of interest to which the eye is drawn. It might be a fireplace or pretty latticed window which is already there. Or you may need to create one yourself.

An unusual window could be accentuated, dadoes or cornices picked out. Or you might have an interesting architectural feature such as an arched alcove or unusual decorative moulding which could be highlighted. Even boxy rooms have a symmetry that can be improved on.

The real art lies in keeping your feature part of an overall theme.

Try to think of furniture arrangements in relation to the shape of the

room. If you can get the layout of the room to work, you are half way to overall harmony.

If you have an attractive fireplace with either a log-burning stove or open fire choose a seating arrangement which will enhance it. Twin two-seater sofas might be more useful than a conventional three-piece suite, with perhaps a long coffee table in between. One or two second-hand or antique chairs could be included for economy and visual interest.

Few of us have the funds to buy exactly what we want all at once—and perhaps it is just as well. All homes look and feel better for a mixture of old and new. You need to live with furnishings and decor in order to get the balance right.

Deciding which corner would be better filled with a circular pedestal table or triangular display unit will be that much easier when you have a true feeling for the room.

You will probably find your ideas change as you start adding to your furniture and accessories. And the end result might be totally different to what you originally envisaged.

When you are satisfied that the design for the room is right—including plans to buy things over the course of a year or two—you can start to consider colour and character.

Many people would never consider second-hand furniture and want everything new. In this case it is better to invest in good quality soft furnishings rather than buying cheap designs which are likely to fall to pieces before long. But if you are unable to buy everything you want straight away, you can turn to other means of giving your home character.

Syndication International Ltd

Above: *Matching curtains and bedspread will look even more stylish with co-ordinated border trim and curtain tie-backs*

Right: *A simple pattern in different colourways can be used to enliven an alcove cupboard. Use wallpaper on drawer fronts and shelves and the basic colour to highlight—you may even find some china to match!*

Sanderson

Choosing colour

Colour and pattern play a tremendously important part in our lives and those you choose should feel comfortable as well as decorating the home.

Wallpapers, fabrics and paint all go towards achieving a co-ordinated look and the subtleties with which you can use them are almost endless.

Strangely, the colours we choose for clothes are not necessarily those we like to live with. A good example is white—ever popular for decorating but over-demanding for everyday clothing.

Brown has the quality of serenity and blends well, both with natural woods and materials and neutral shades like silver, black and gold. It is ideal for a study, antique-filled living room or anywhere a neutral back-drop is required, but needs to be sparked off with pinks, reds and creams if it is not to seem too dull.

One of the easiest of colours to plan a room around—and to use for camouflage—is blue, in all its many hues. Also tranquil and relaxing, it offers far more variety than brown and mixes well with just about every other colour.

Many of the good things of nature are green—trees, plants, vegetables, fruit—and when introduced into a room, this immediately brings it to life. Green, probably more than any other colour, lends itself well to co-ordination.

Yellow is a colour that either attracts or repels you; but it can be amazingly stimulating when used to

The Picture Library

Left: *A bold basic colour will add glamour and drama to a small bathroom. Follow through the effect by choosing matching accessories*

introduce a touch of sunshine to an otherwise dark room. Graduations of yellow can be very successful together, say one shade of paint for walls, another for woodwork and a third for the ceiling.

Red is the boldest colour of all and unless it is used as an accent colour, should be spread over a total area.

The secret of co-ordinating colours well is to keep things simple and to know what effect you want to achieve before you start. The fewer colours you use, the more effective the end result will be. Build up variety with different tones and hues.

Cool pastels create a feeling of spaciousness while vibrant colours tend to make walls stand out. Use darker colours in a large room for cosiness and in a small one for dramatic effect.

Pattern and design

When you have decided what effect you want to create and have chosen the colours you want to live with, your next decision will be to pattern.

Modern wallpapers are increasingly versatile, designed for mixing and matching with great flexibility. For example you can buy patterned wallpaper with two or three mini-print designs related to it, and with plain paper and paint colours also keyed-in.

The idea is to use the main pattern on three or four walls with the mini print in an alcove, the side walls of a fireplace, or in an adjacent room. Or vice versa.

Then there are co-ordinating friezes and borders, which you can use with either paint or wallpaper and matching or co-ordinating curtains. This concept used to be confined to the luxury end of the market, but is now available in every price range.

There are literally thousands of wallpaper designs available and many people find it impossible to visualize them in their own homes. Some books have coloured room settings which help to show a pattern in depth, but it is always a good idea to take along fabric samples of existing furnishings for a colour match. It is surprisingly easy to get a colour you are trying to remember completely wrong.

Mini prints are increasingly popular because they are undemanding and easy to relate to. Yet a large scale, dramatic design can do miracles for the right room and needs fewer pictures and ornamentation. If you like the idea of an unusually dramatic design but have a few doubts, buy one roll and pin it up in the room for a period of time. Quite often, the more you have of a bold pattern, the more it seems to merge into the background.

You can use large repeat designs in both large and small areas. Take a bold design up a two-storey hallway for instance, and into a cloakroom in a quieter contrast to the living room.

Mini prints used in small rooms on all four walls and on the ceiling create a cosy effect. Having them everywhere in quantity, colour-keyed to each room, creates greater continuity throughout.

But take care not to swamp a room with the same design; aim instead for a build-up of slightly different types of pattern.

Leading wallpaper and fabric producers aim at collections which blend together so that not one, but half-a-

Vymura

Left: *Used wisely, matching wallpaper and fabric look really stunning. Use the background colour to highlight a wall and for upholstery*

dozen or more patterns can be used without seeming overpowering.

This co-ordinating theme can be applied to anything from fabric, wallpaper and ceramic tiles to lampshades, tablecloths and roller blinds. The secret is to mix designs in no more than one or two colours, or even to use the same design in its different colourways.

Mix and match ideas

When first introducing pattern into a room, decide what is to be the pattern focal point—sofas, walls, curtains, carpeting, a collection of paintings or ornaments are all suitable.

In the living room, for instance, take the sofa or chairs as a starting point and cover them in a blue and green floral print. Then, using furnishing or dress fabric remnants in paler and darker blues and greens, make cushions and curtains to match. Add a border of plain blue or green petersham to the curtains and make matching tie-backs. The walls could be painted magnolia, or very pale turquoise with a border or central dado painted in plain blue or green to match the curtain border.

To further accentuate the blue-green theme, make a circular tablecloth out of the same, or a co-ordinating fabric with placemats to match. Add a border and use the same fabric or colour for a picture frame.

Collect blue ornaments and group them together—even a row of blue paper-backed books can look good in the right position. Introduce other colours as accents, rather than main colours so that the room does not become too stylized.

You might inherit a patterned carpet, perhaps in a rented flat or from a relative, which you would not necessarily have chosen yourself. But if you decorate around it, rather than against it, the design will seem less dominant. Use loose covers in plain materials for chairs and paint, rather than wallpaper, on the walls. Also, invest in greenery and pleasing objects: concentration of one colour on a side table or shelves will attract more attention away from the floor.

Be clever with pattern—some designs can be cut into friezes for bordering a hatchway to a dining room or framing up a door. A home-made cornice at about 300mm below ceiling level makes plain walls more interesting. Wallpapering above a central dado and gloss paint below can define a rather dull room by drawing the eye to its borders.

The bed is probably the largest single item in the bedroom and a good starting point for your colour and pattern theme.

There is an enormous range of designs for both duvets and bedspreads and a variety of plain colours. The valance, bottom sheet and pillow cases can all be mixed and matched.

Use co-ordinating paper on the walls and ceiling for a very pretty effect and perhaps even add matching curtains. If the window has a private aspect, keep the curtains permanently tied back at either side and use a co-ordinating roller blind at night.

Kitchens and bathrooms take well to pattern, particularly if they are small or irregular in size. Floral designs in particular can disguise corners out of true, awkward areas around appliances and uncomfortably high ceilings.

Many wallpaper ranges now have matching or co-ordinating tiles which can be stuck around the bath or wash-basin or used to frame a work surface or window.

Finally, remember that using co-ordinating effects for the home can be a lot of fun. Always aim at harmony rather than shock effects and keep to a one- or two-colour theme for best results.

Michael Boys/Susan Griggs

Above: *A novel way to introduce co-ordination and harmony into an otherwise neutral room is with a variety of matching coloured cushions*

Project

Modernize your kitchen

You do not have to spend a fortune to bring the kitchen up to date. Careful thought and a streamlined visual approach can work wonders with any kitchen

The problem is a common one, and often comes to light when you are thinking of redecorating the kitchen: the existing fittings are basically sound but look shabby and old-fashioned and do not provide quite the storage you need. One solution is to refit the kitchen completely with modern units planned to fit the space, but this is a very expensive answer. An alternative is to dress up the existing units and tie these in to the colour scheme to give an overall designed look to the kitchen, building in more storage where necessary. The designs overleaf show how a typical kitchen can be transformed and how you can give a new look to common, older types of kitchen unit.

The first thing to do is to take a good look at the existing kitchen and decide where you need alterations to the storage space or working area. This kitchen had an obvious wasted space over the sink, and a simple design for extra shelving (see pages 392 and 393) utilizes this space highly effectively while providing a draining rack for plates and cups.

The other area of wasted space in this kitchen was between the upper and lower storage cupboards either side of the worktop on the other side of the room (see picture, page 395). The old plastic laminate surface was tiled over and a simple herb and spice rack built in between the new surface and the cupboards above. See page 35 for the complete design.

The next thing you should do is to decide on the overall look you want to achieve. Some simple sketches can be a big help here. The horizontal emphasis aimed for in this design gives a modern look, ties in with the level of the work surface and is very easy to achieve. The old-style handles on the cupboard doors were changed for modern, extruded aluminium handle sections (see page 395).

You can buy these in a very wide range of styles, which makes them easy to fit to almost any door or drawer. If your cupboard doors have curved edges, which many did in this kitchen, plane them down as shown to give a square edge. To carry on the horizontal look, hardwood strips were pinned on between the doors and drawers. These helped to tie separate units together horizontally. By overlapping the strip running along above the worktop, it provided a mounting for a concealed striplight to illuminate the work surface below. The same hardwood was used to make handle sections for the sink unit to match it to the look of the other units (see opposite). You could use a handle section in aluminium here too.

At the same time as the modernization of the door handles, make good any of the surfaces which have become damaged. Fill any scratches or knocks on the doors, and take the opportunity to resurface the worktops. One idea for doing this is shown on page 35. Alternatively you could simply glue on new decorative laminate. If the door hinges are damaged, replace them. If the drawers are not running smoothly, plane them to fit or reset the runners as necessary. Tidy up any of the internal shelving and repaint.

To help you get the overall look to your kitchen, repaint the units in a colour which will blend with any of the fittings which cannot be changed using a good quality gloss paint. If you do not plan to change the flooring, use a colour to blend with it.

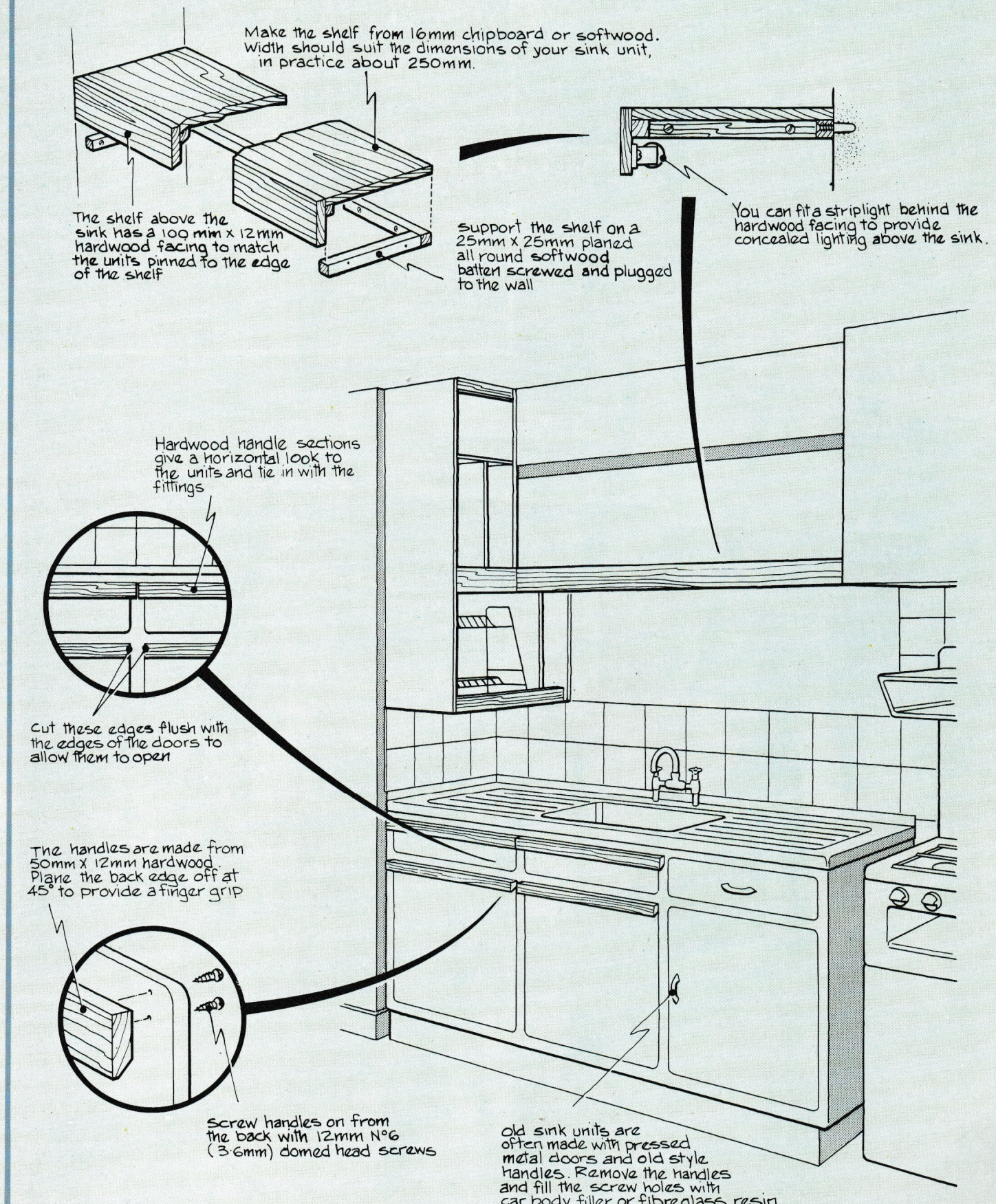
New wall tiles help to dress up the kitchen, especially if you use a toning colour. Tiling a wall is covered on pages 30 to 34. This is probably the easiest way to deal with the area around the sink, which in old kitchens is often very untidy looking, especially if it has been replumbed.

The total cost and time involved in modernizing your kitchen in this way are very small compared with the money and effort required to refit completely. The ideas shown in the next few pages can easily be adapted to suit many types of standard unit.

Right: *A new look for an old kitchen. A haphazard collection of old units can be transformed by very simple methods to make better use of the space and give a coherent look*

BMV

Clive Helm


Make the shelf from 16mm chipboard or softwood. Width should suit the dimensions of your sink unit, in practice about 250mm.
The shelf above the sink has a 100 mm x 12mm hardwood facing to match the units pinned to the edge of the shelf
Support the shelf on a 25mm x 25mm planed all round softwood batten screwed and plugged to the wall
You can fit a striplight behind the hardwood facing to provide concealed lighting above the sink.
Hardwood handle sections give a horizontal look to the units and tie in with the fittings
Cut these edges flush with the edges of the doors to allow them to open
The handles are made from 50mm x 12mm hardwood. Plane the back edge off at 45° to provide a finger grip
Screw handles on from the back with 12mm N°6 (3·6mm) domed head screws
Old sink units are often made with pressed metal doors and old style handles. Remove the handles and fill the screw holes with car body filler or fibreglass resin

Advertising Arts

Streamline the sink unit

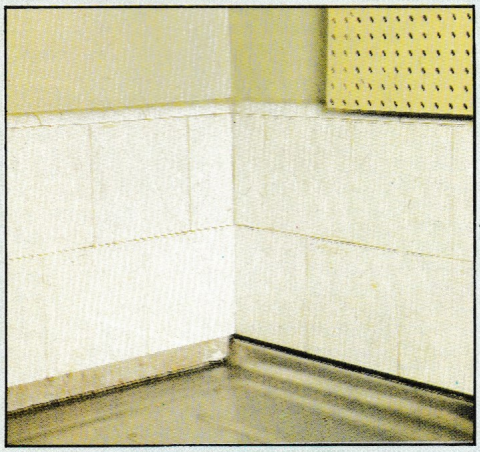
Clive Helm

Sink units can pose something of a problem when it comes to redecorating. Older ones often have cupboards and drawers made from pressed metal, and it is difficult to make structural alterations to these or even to change the handles. Wooden units are much easier to modernize, as shown on page 395. This design takes one of the metal type and looks at ways of modernizing it and getting it to tie in with the new look for the kitchen.

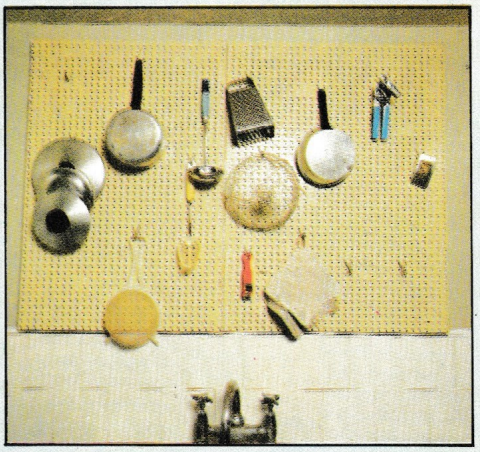
The first thing to do is to remove the old handles. The holes these leave will have to be filled with a filler for metal—one of the car body repair pastes is very suitable. Give the whole unit a good rubbing down and paint it to match the overall colour scheme. To get that horizontal look, you could use aluminium handle strip as shown on page 395, but the design shown uses handles made up from hardwood to match that on the other units. The drawing opposite gives details of how to make these and screw them in place.

You can continue the horizontal look by fitting a simple shelf over the sink and edging this with the same hardwood strip that was used for the units. This gives you useful hanging space for pots and pans where they can drain on to the draining board. Arrange draining space for plates and cups by making a unit to take a standard wire drainer like the one shown on page 394 which can be adapted to fit most spaces.

Below and below right: *The area around the sink is often untidy-looking with shabby or damaged tiles. After retiling and adding extra storage space, the whole area is transformed to be much more useful and neater*



Right: *How to achieve a new look for old doors. The pressed metal doors on this type of unit have been repainted and fitted with hardwood strips for handles to blend in with the decor and continue the line of the other units*



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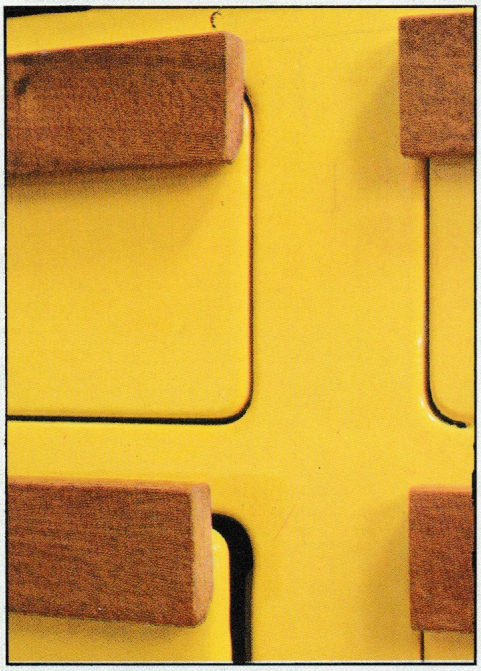
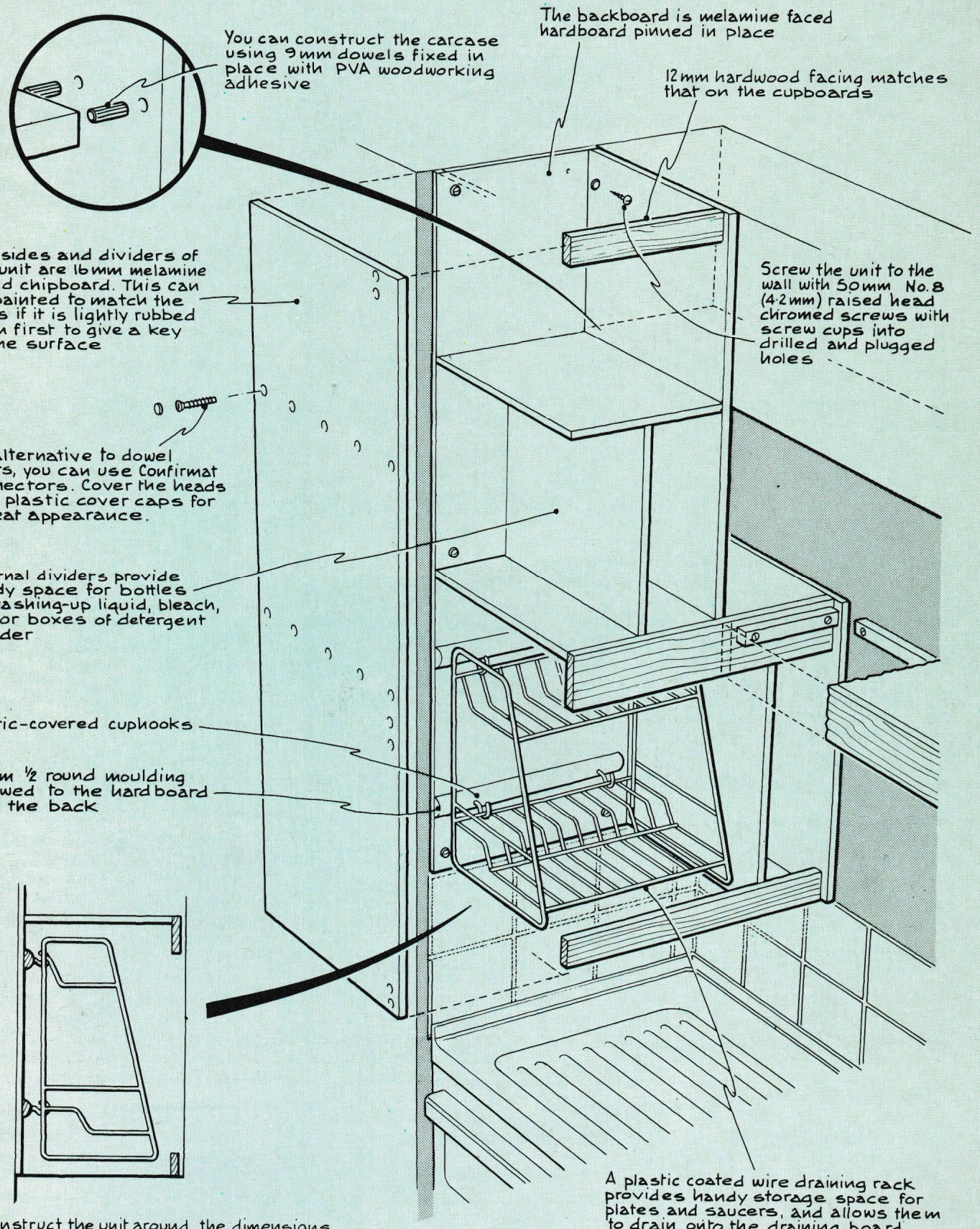


Clive Helm

Extra shelves above the sink

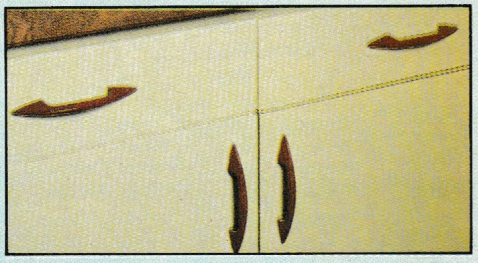

You can construct the carcase using 9mm dowels fixed in place with PVA woodworking adhesive
The backboard is melamine faced hardboard pinned in place
12mm hardwood facing matches that on the cupboards
The sides and dividers of the unit are 16mm melamine faced chipboard. This can be painted to match the units if it is lightly rubbed down first to give a key to the surface
Screw the unit to the wall with 50mm No.8 (4·2mm) raised head chromed screws with screw cups into drilled and plugged holes
As alternative to dowel joints, you can use Confirmat connectors. Cover the heads with plastic cover caps for a neat appearance.
Internal dividers provide handy space for bottles of washing-up liquid, bleach, etc. or boxes of detergent powder
plastic-covered cuphooks
25mm ½ round moulding screwed to the hardboard from the back
A plastic coated wire draining rack provides handy storage space for plates and saucers, and allows them to drain onto the draining board

Construct the unit around the dimensions of the draining rack. Hang it on cup hooks as shown so it can be easily removed for cleaning

Advertising Arts

Dress up your doors

Clive Helm



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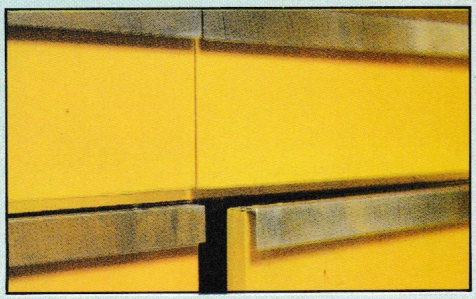
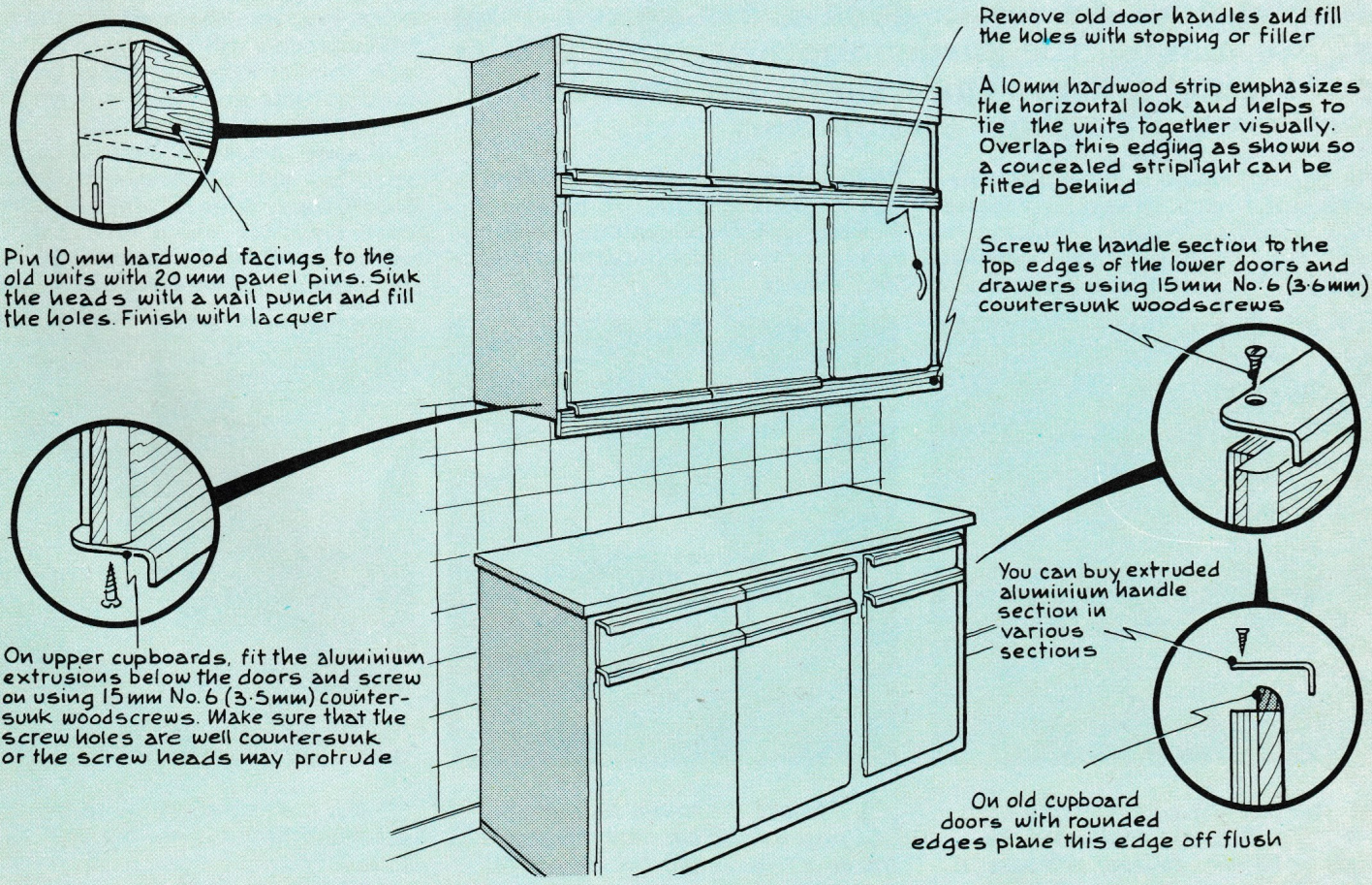


Clive Helm

Doors on older kitchen units commonly have rounded edges and moulded plastic handles. To obtain a modern, linear look, square off the door edges as shown and fit aluminium handle section along the top or bottom. Remove old style handles, fill the holes and paint the surfaces to match an overall colour scheme. Fit hardwood strips to emphasize the horizontal and co-ordinate with the sink unit.


Remove old door handles and fill the holes with stopping or filler
A 10mm hardwood strip emphasizes the horizontal look and helps to tie the units together visually. Overlap this edging as shown so a concealed striplight can be fitted behind
Screw the handle section to the top edges of the lower doors and drawers using 15mm No. 6 (3·6mm) countersunk woodscrews
Pin 10mm hardwood facings to the old units with 20mm panel pins. Sink the heads with a nail punch and fill the holes. Finish with lacquer
On upper cupboards, fit the aluminium extrusions below the doors and screw on using 15mm No. 6 (3·5mm) countersunk woodscrews. Make sure that the screw holes are well countersunk or the screw heads may protrude
You can buy extruded aluminium handle section in various sections
On old cupboard doors with rounded edges plane this edge off flush

Advertising Arts

Repairing fences

Ray Duns

Left: *The galvanized steel bracket is extremely useful for a number of fence repairs.*
A. Right: *Use this illustration to help when ordering materials for fences*

Getting your fences in good order goes a long way to making the garden more attractive. You can replace them, repair them or even add new sections quite simply and cheaply

For wooden fences to be an asset in a garden, they must be regularly treated with preservative and repaired as soon as damage becomes apparent. Like any cut wood which is exposed to the elements, fences are susceptible to rot and infestation—so unless renovations are conscientiously carried out, they can quickly fall into a state of disrepair.

Preservatives

Most new posts have already been impregnated under pressure with a solvent to protect against wood-boring insects and fungus infections. But if there is any doubt as to whether this is the case, soak the post for at least two days in a preservative before putting it in the ground.

Creosote is the most well known external wood preservative. It has a tar and oil base and of the many types available, BS 144 is the one recommended for fencing in the UK.

The main drawback to creosote is that it stains the wood a dark, not very attractive colour. Also, once the wood has been coated with creosote it cannot normally be painted over.

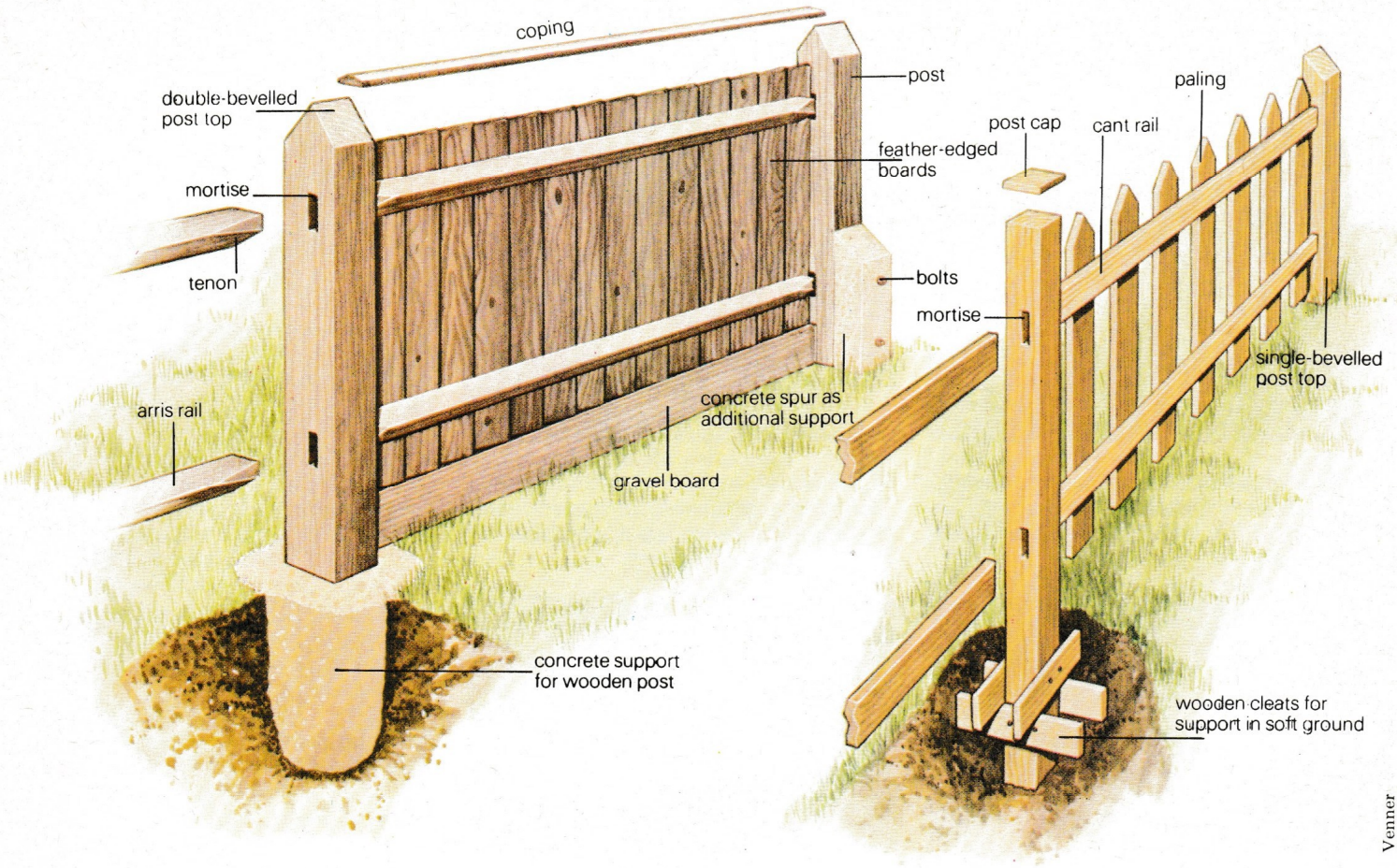
Creosote must be applied to dry wood—either by soaking or applying with a brush. If you brush it on, bear in mind that it will penetrate only about 3mm into the wood and that the whole process will have to be repeated in a couple of years. Remember also that creosote and other solvents are poisonous to all life forms.

A more expensive form of preservative but one which can be painted over is the organic solvent—a preservative chemical which has been dissolved in white spirit or petroleum oil. Organic solvents can even be used

1 *Remove the concrete spur from the supporting post using the bolts as handles to lever and ease it out of the ground*

2 *Replace the rotten supporting post having cut new mortises for the arris rails. Angle-cut the top for water to run off*

3 *Set the concrete spur to overlap about 100-150mm below the bottom of the post and mark the new positions for the bolts*



Venner

to treat wood which has already been attacked by fungus or insects.

Whenever a post or piece of fence is being replaced, the new section must be treated with a preservative, or it will quickly rot.

Paint acts as an effective barrier for wood only if a new coat is applied immediately the old one shows signs of flaking or blistering.

Remember when using wood preservatives to wear protective clothing and eye protection. Always apply the preservative in the open air or at least in a well ventilated room.

Repairing a post

The most likely place for a fence post to become damaged is at, or below, ground level. At this point, the wood is almost permanently damp, causing it to rot. Once a post is rotten, it can give no support and the section of fence butting up to it tends to lean out of alignment.

To repair the post you must cut off the affected part and attach a supporting spur (fig. A). This involves temporarily supporting the fence and then digging a hole around the post about 600mm square and 300mm deep. Saw off the rotten part of the post once it is completely exposed and bolt on the

4 When the base hole is dug and the timber preserved, set the post and spur in position and find the vertical with a spirit level

5 If the arris rail tenon is also rotten make a mortice from timber blocks and screw them firmly to the post around the arris rail

6 Pack a mix of concrete firmly into the hole at the base to give a solid support for the spur and the fence post

7 *Saw off a particularly weak arris rail tenon at the mortise joint, removing the end board of the fence to get access*

8 *Position a galvanized steel joining bracket to bridge the gap between the solid part of the arris rail and the supporting post*

9 *You can also employ a steel bridging bracket at points where the arris rail has broken between two supporting posts*

10 *Make sure the fence is back in alignment then place the bracket centrally over the broken section and screw it in position*

concrete spur—150mm or 200mm coach bolts are suitable.

The straight face of the spur should be against the post (fig. A). When it is in position, use a spirit level to check it is upright. Hardcore should then be packed around the bottom of the spur and the hole filled with a 1:3 cement and coarse sand mix.

This method of repairing a post will withstand fairly severe weather conditions. Another method for a fence post which is not exposed to strong winds is the use of a metal spike.

After the rotten part of the post has been cut off, the ground must be tightly packed back into place. The metal spike is then driven hard into the ground, while gently holding the fence out of the way. When the spike is in position, push the post into the spike's container.

Repairing an arris rail

An arris rail—the horizontal bar of a fence—can easily be repaired if it is broken at the tenon (pointed end) or in the shaft by using a metal bracket to bridge the broken part (fig. 8).

If the tenon is broken, first level it off and then brush it with a preservative. Using galvanized or sheradized screws, fix the arms of the bracket to the post in the same place as the rail was originally fixed. With the bracket in place, screw both sides of it to the shaft of the arris rail.

When using a metal bracket to repair the shaft of an arris rail, screw it to one side and then with the aid of an assistant push the other side inwards and screw the bracket to that.

It is most important to use galvanized or sheradized screws in external woodwork. Ordinary screws will simply rust away—causing unsightly stains on the wood—or fuse with, and split, the wood.

Fitting a new arris rail

When ordering a new arris rail, measure the distance between the two upright posts and add at least 75mm so that tenons can be formed. Use a small axe to whittle the rail so that it fits into the mortise (rectangular slot) in the post (fig. A).

Treat both the tenons and the mortise with preservative before fixing the rail in position. New arris rails can be fixed to the post using either a metal bracket or the wooden chock method.

For the latter you need four 25mm × 20mm offcuts of wood to fit around the mortise. They must all be coated with preservative and then all but the top piece screwed into position. With this done, the rail can be slotted into place and the fourth strip of wood screwed tightly down for a firm grip around the tenon. Do this at both ends of the rail.

New boards in feather fencing

A feather fence is one which is made up of slightly overlapping vertical strips of wood (fig. A). It is a simple matter to replace either one single board or to erect a whole series to form a complete new section.

When only one board needs replacing, remove the nails which are securing it and make sure that those securing the boards on either side of the damaged board are well banged in. Then slide the thin edge of the new board under the thick edge of the old one and nail through the overlapping edges with galvanized nails.

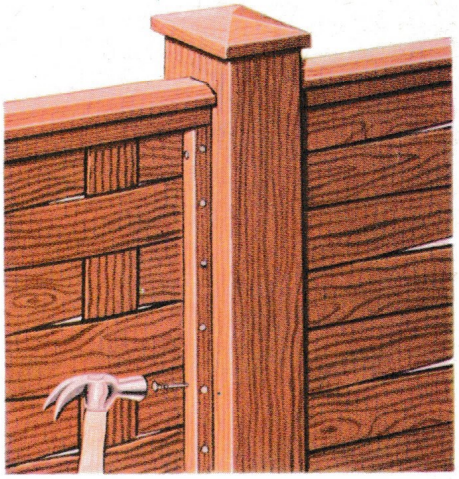
If a whole series of boards needs to be fitted, follow exactly the same procedure except for using a spirit level every fourth board to check that they are vertically level.

Gravel boards

As all wooden fences are at their most vulnerable where they touch the ground, a gravel board is usually fitted to minimize the risk of damp rising through the fence (fig. A).

Most gravel boards are made of 150mm × 50mm hardwood. Alternatively, the fence can either be set on a single course of bricks topped with a strip of roofing felt, or on a custom-designed concrete panel.

To fit a wooden gravel board, clear away any soil or debris from around the base of the fence to form a recess for the board. Treat the board with preservative and either fit it into pre-cut mortises in the wooden posts



Venner

B. *Follow this method and you can add any length to a woven panelled fence with little difficulty*

or nail it through wooden blocks attached to the inside of the post. The blocks can be of the same wood and need to be set back from the edge of the post so that the gravel board will be flush with it.

If the posts are concrete, drive pegs into the ground butted right up to the post. The pegs should be made from treated 50mm × 50mm hardwood and at least 600mm long. Leave about 150mm protruding from the ground and—after measuring and cutting the board so that it fits tightly between the posts—nail it to the pegs.

Concrete gravel boards are also available, designed for use with concrete posts. Such posts have a groove on the inside surfaces, into which the concrete gravel can be slotted (fig. A). Fencing panels are ideal for use with this system because they too can then simply be slid into position.

Panelled fencing

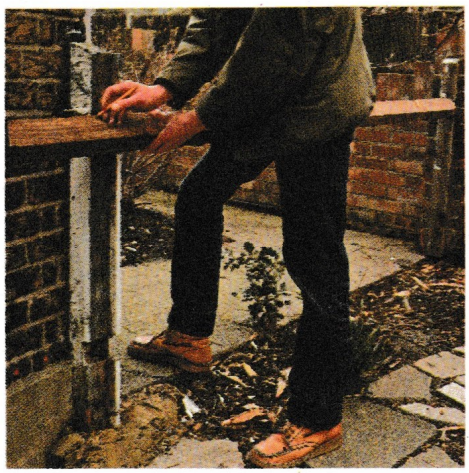
Interwoven panelled fencing (fig. B) is the simplest type of fencing to erect but it has the drawback that even the slightest damage to a panel usually means that the whole section has to be replaced. Being very light and fairly tall, woven panels are especially susceptible to damage from strong winds. Since it is an expensive business to replace entire panels, such fencing should always be set on a gravel board.

The slats which make up woven fences are very difficult to obtain individually—unless a second-hand panel is available from which slats could be taken. It is usually always necessary to buy an entire panel. They are sold in standard sizes of about 1.8m wide.

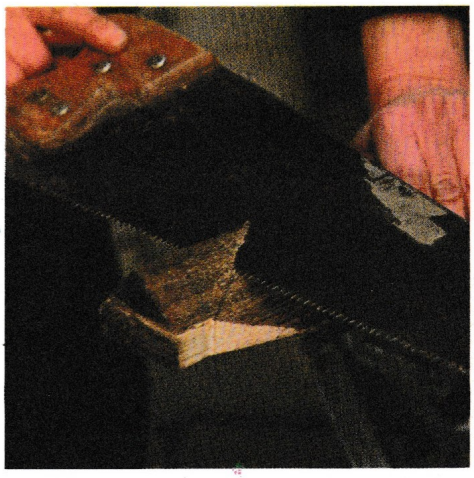
Panels can be cut to size, if necessary. To do this, hold the panel in the correct position and mark off the overlap. Carefully remove the end battens with a claw hammer. These will be longer than the middle battens because they extend up level with the top rail. They should be re-nailed inside the marked lines and underneath the top rail so that the excess protrudes from the bottom. It can be sawn off when the batten is in position. The surplus part of the panel can also then be sawn off, using the end batten as a guide (fig. B). With this done the panel is ready to be positioned alongside another and hammered into its correct place.

Do not forget that panel fences, like other wooden types, must be regularly treated with preservative if they are to stay in good condition.

11 *In order to replace a rotten picket fence first measure the height of the palings and the length of the arris rails*

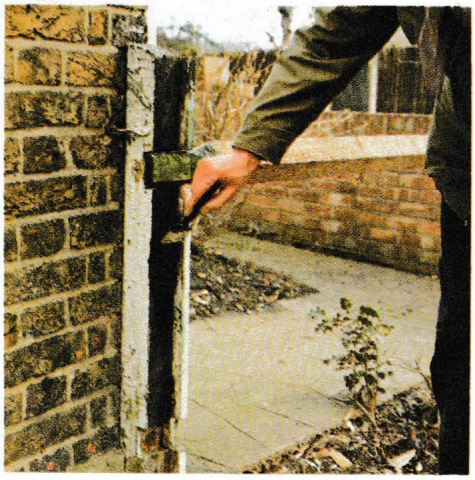


12 *When the rails and palings are removed, mark the positions for the tenons at each end of the new arris rail*



James Johnson

13 *Mark out the shape of the tenon on the new rail and cut it out by sawing or whittling with an axe. Treat the cut end with preservative*



14 *Set the new rail tenon into the mortise in the supporting post and paint the post liberally at this stage with a wood preservative*

15 *Mark out the triangular shape at the top of the paling timber and saw the first one carefully to use as a template for the others*

16 *When the palings have been painted with preservative, set the first one in position and check it for spacing and plumb*

17 *Set the second paling at the exact height at the other end of the section then secure both palings with galvanized nails*

James Johnson

18 *Stretch a string attached to nails in the supporting posts to act as a guideline for the horizontal line of the palings*

Removing a wooden post

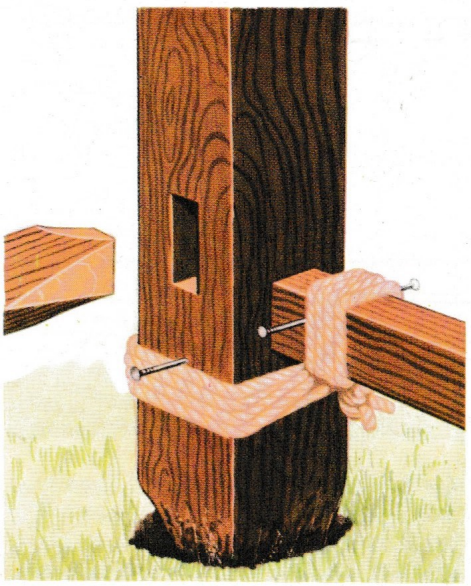
It is sometimes very difficult to remove an old wooden post which has been set into concrete. However, the job can be made easier by using a strong rope-leverage system.

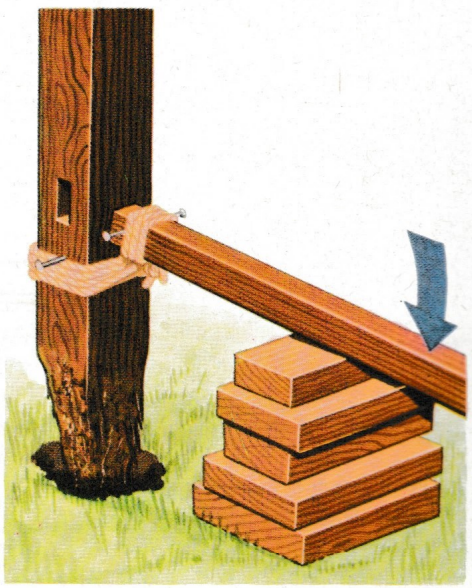
First, temporarily support the fence by tacking a sturdy batten to the top arris rail on either side of the post. In the case of a slatted fence, remove one board from either side of the post. Afterwards, dig out as much soil as possible to completely expose the base of the post in its bed of mortar.

Hammer in a 100mm nail about 300mm from the ground on either side of the post then tie a strong rope round the post immediately below the nails, leaving enough of the rope to tie around a suitable levering post. The levering post must be of very sturdy wood. Two nails should be hammered into it about 30mm from the end to provide a grip for the rope.

Stack some bricks under the levering post about 100mm higher than the nails in the post. Push hard on the stick to ease out the post, adjusting the height of the bricks as necessary for maximum leverage.

The new post should already be pre-treated. Insert it in a hole at least 600mm deep and after packing in some hardcore, fill in the hole with a 1:3 cement and coarse sand mix. The top of the new post should either be cut slanted at an angle of 30° and painted with creosote or have a hardwood or metal cap screwed on to it. Either of these methods helps prevent penetrating damp by protecting the exposed end-grain of the wood.





Venner

C. *With an assistant holding the post, lever extraction is easy*

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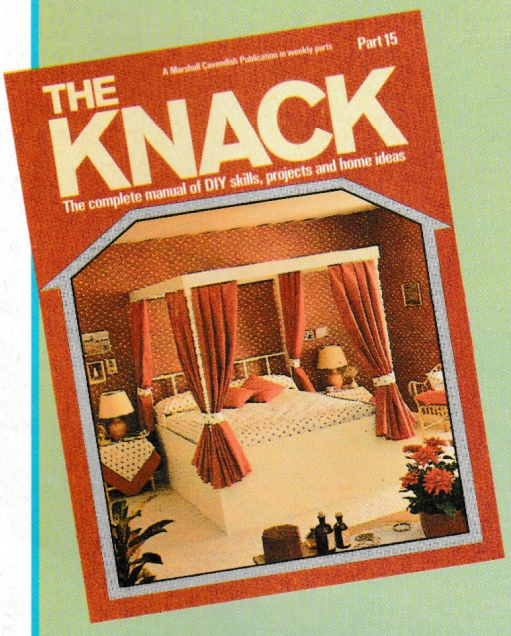

A Marshall Cavendish Publication in weekly parts
Part 15
THE KNACK
The complete manual of DIY skills, projects and home ideas

All about carpets: Choosing the wrong carpet can be an expensive mistake. We give some invaluable advice on which types offer the best value and where to put them.

Below-ground drainage: Following on from our above-ground drainage feature, we describe that often forgotten but nevertheless vital part of any household plumbing system.

Four-poster bed: Ever considered taking an ordinary double bed and giving it a touch of four-poster glamour? We show you how with plans for a simple conversion.

Types of roof: Starting off our new course—roofing—we go through the various types and show in detail how they are constructed.

Papering a stairwell: This is one decorating job which calls for quite a lot of expertise. We show the way the professionals do it in detail.

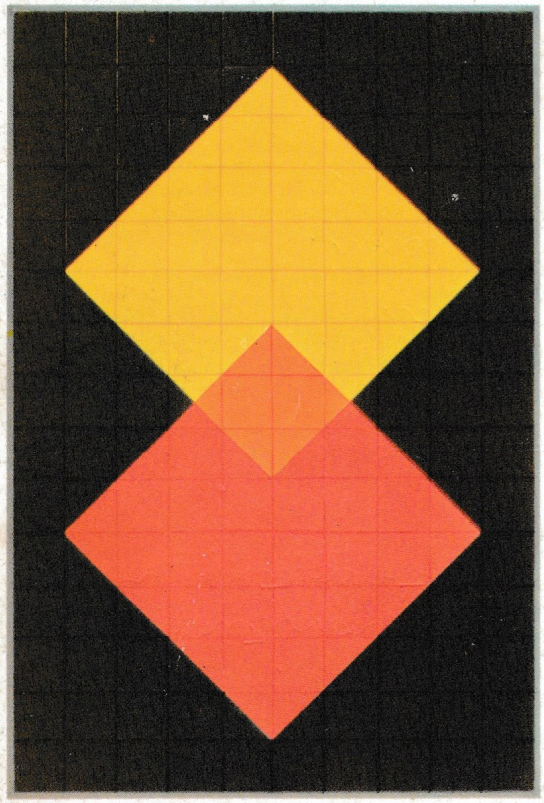
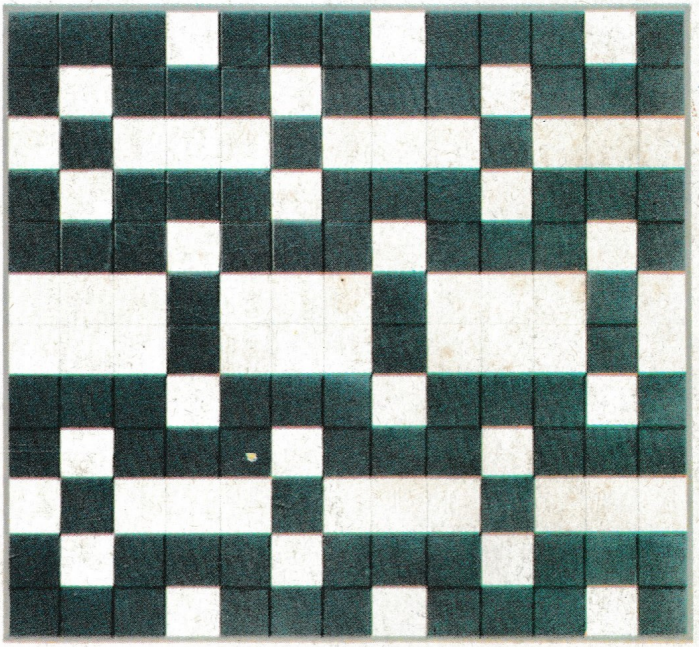
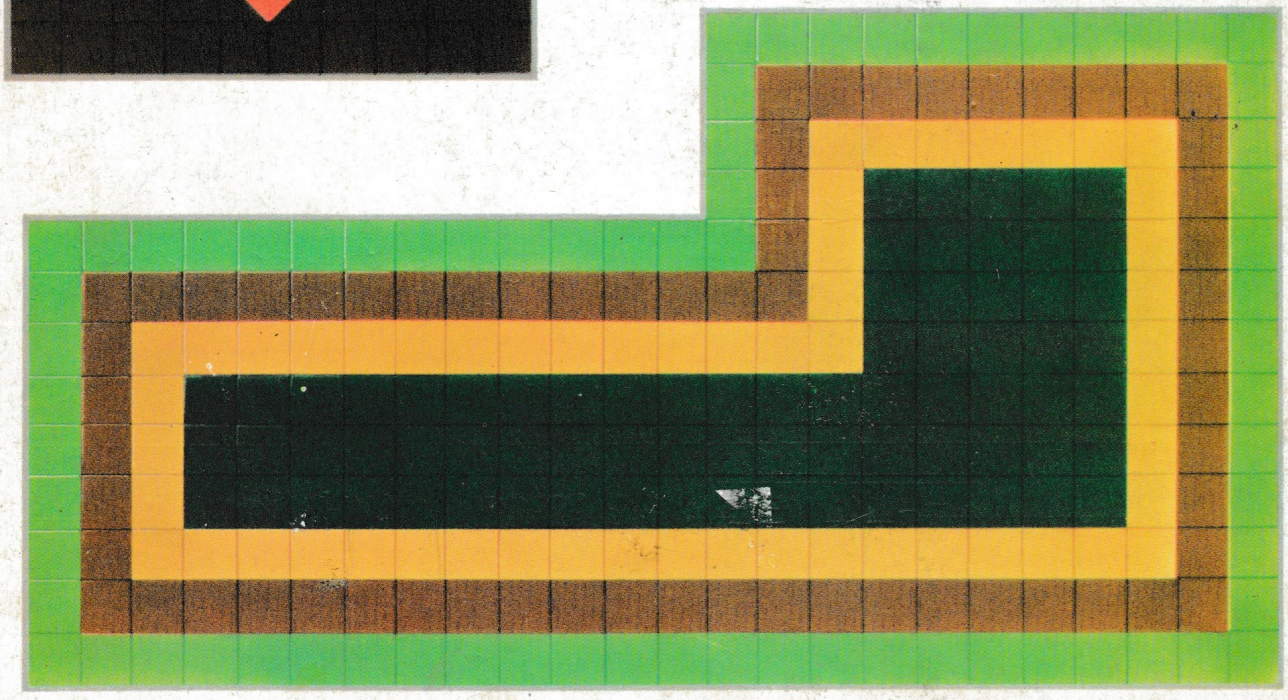
Where to buy it—UK

Working with chipboard Pages 373-379
Further advice on chipboard from:
Chipboard Promotion Association Ltd., 7A Church St., Esher, Surrey KT10 8QS.
Boards and edging strips from:
Aaronson Bros. Ltd., Conti Products Division, Church Wharf, Rickmansworth, Herts.
Knock-down fittings from:
Woodfit Ltd., Whittle Low Mill, Chorley, Lancs. PR6 7HB
Laying floor tiles Pages 380-385
Vinyl tiles from:
Amtico Courtaulds Ltd., PO Box 42, Foleshill Rd., Coventry, CV6 5AG; Dunlop Ltd., Rubber Plastics Divn., Wrexham Ind. Estate, Wrexham, Denbighshire; James Halstead Ltd., Radcliffe New Rd., Whitfield, Manchester M25 7NR; Gerland Gerflex Ltd., 90 Crawford St., London W1H 2AP; Marley Tile Co. Ltd., London Rd., Riverhead, Sevenoaks, Kent
Cork tiles from:
Bathgate & Co. (Cork) Ltd., 39-41 Cumberland St., Edinburgh EH3 6RA; Siesta Cork Tile Co., 127 Cherry Orchard Rd., Croydon, Surrey CR0 6PE; Ucan Ltd., Old Esher Rd., Hersham, Surrey; Wincanders (GB) Ltd., Maxwell Way, Gatwick Rd., Crawley, W. Sussex
Modernize your kitchen Pages 390-395
Wire baskets from Woodfit Ltd. (address above)
Aluminium handle sections from:
S. Leboff (Fobel) Ltd., Hyde House, NW9

Acknowledgements

Pages 373-379
Drilling jig supplied by Wolf Electric Tools Ltd., PO Box 379, Hanger Lane, W5 1DS
Edging strip by Plasplug Ltd., Paget St., Burton-On-Trent, Staffs.
Pages 386-389
Pictures courtesy of ICI, Sandersons and Designers Guild

USING TILES

It is easy to create interesting designs using two or more colours of plain tile. The illustration below shows three different ideas, or you can make up your own patterns. Draw a scale plan of your floor on squared paper so that each square represents the dimensions of one tile. Then, with coloured pens or paint, experiment with colour and pattern.

The three designs below show how effective a simple pattern or colour change can be—none of them uses more than four colours. At top right, two colours create an interesting variation on the chequerboard pattern. Four colours give the exciting border effect at bottom, and the striking geometric pattern at top left uses diagonally divided tiles.